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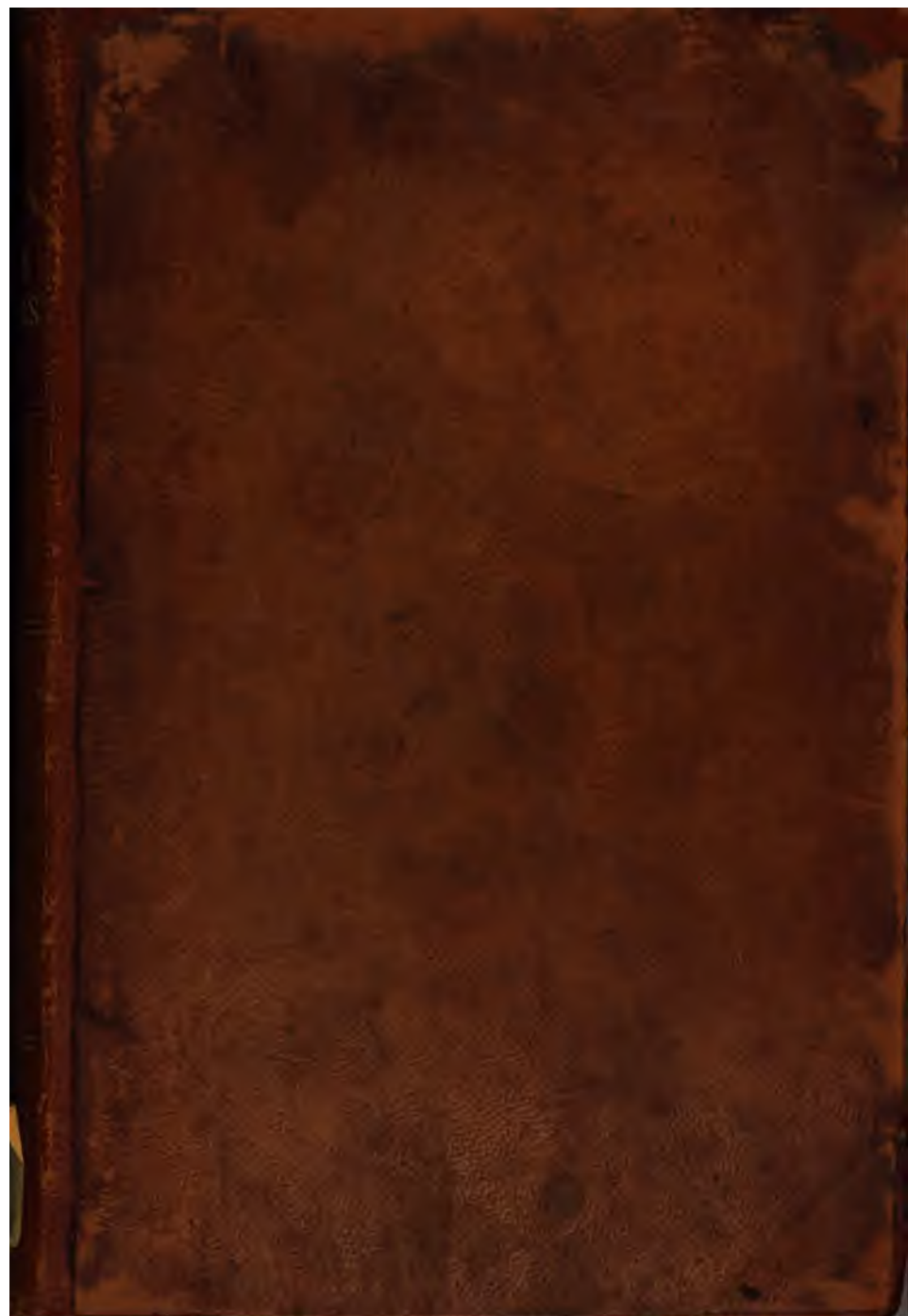
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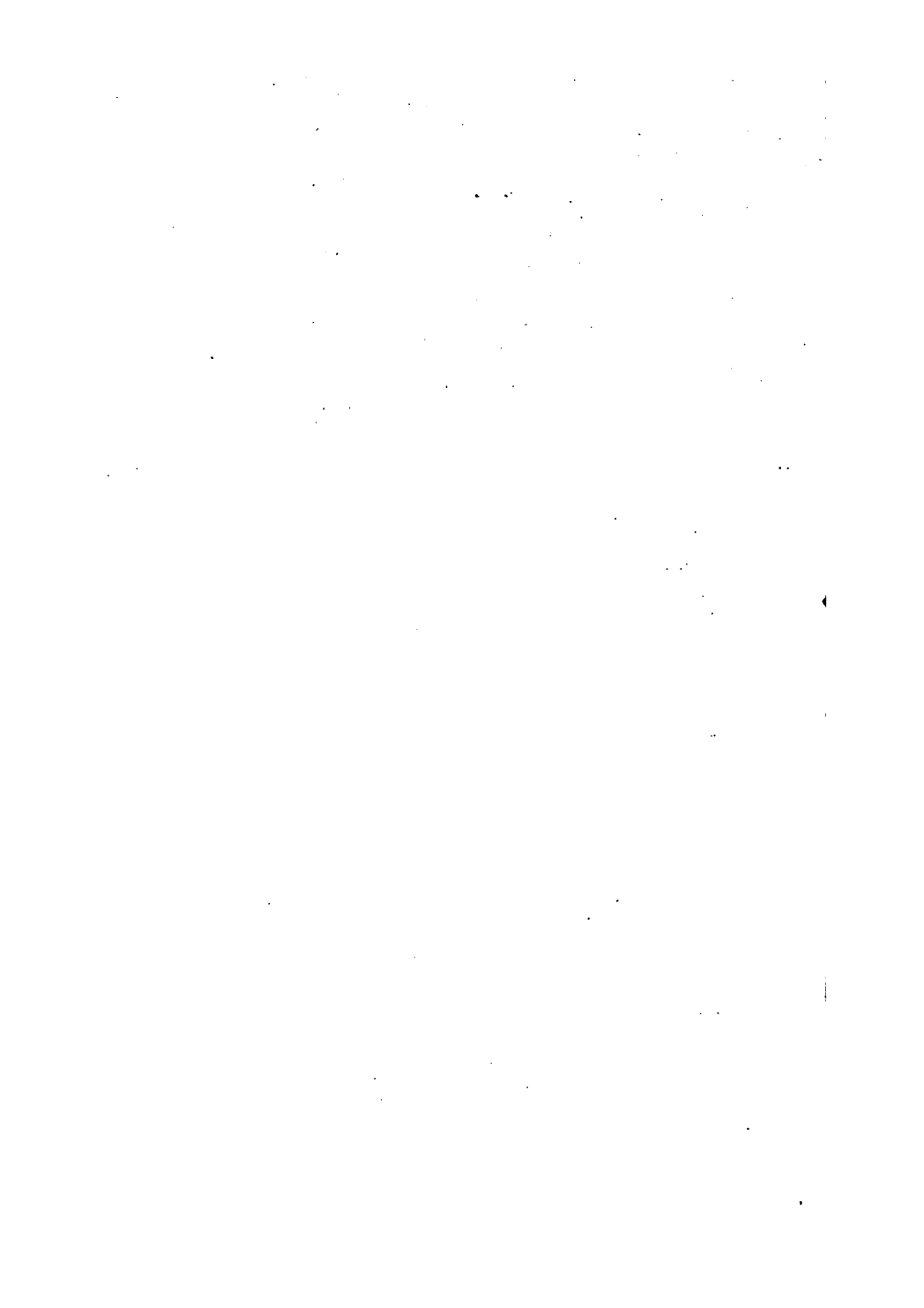
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THE
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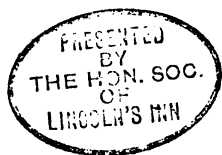
COMPRISING THE
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FOR SECURING
PATENT RIGHTS.

BY WILLARD PHILLIPS.

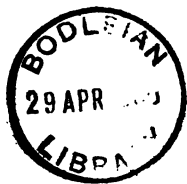
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PREFACE.

THE following Treatise embraces the laws and decisions, and principles and forms, that were considered to be of practical importance to Inventors and Patentees ; omitting the legal proceedings and such other matters as were thought to be peculiarly useful to members of the profession of the law.

WILLARD PHILLIPS.

Boston, January 2, 1837.



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THE LAW OF PATENTS.

CHAPTER I.

Definition.

PATENTS are so called by abbreviation for *letters patent*, that is *open* (*patentes*) letters, a phrase applied to letters or writings addressed by the government, or by the sovereign, or at least by a superior authority, to individuals, as distinguished from letters sealed up or enclosed, and, like these latter, being directed to individuals, they are by this circumstance distinguished from proclamations addressed to the whole people. The expression *patent* thus substituted for letter patent, is applied to cases of making a grant, as of land, or some privilege, or giving a commission, or authority, as in the cases of patents conferring some office. The word *brevet*, used in the French language in a corresponding sense, is applied to a commission

or a grant of rank or office, as brevet of duke.¹ So the French expression for a *patent* in our sense is *brevet d'invention*, or grant of invention; which confers on the person to whom the brevet is granted, the same privilege in respect to an invention, that is enjoyed under other brevets in respect to the office or rank or other thing to which it relates.

In English the dictionaries define a *patent* to be a *writ* granting an exclusive privilege. A *writ* (*writing*) is commonly used to signify a mandate or commission by the sovereign authority, and in this latter sense corresponds to the French term *brevet*, but it is not applied to mere grants, as of land, and it does not accordingly express the distinguishing characteristic of a *patent*, which is a grant rather than a commission, and does not partake at all of the nature of a mandate; since the grant of a privilege does not import a prohibition on all people not to infringe upon that privilege, any more than a grant of a manor implies an injunction upon all other persons not to commit a trespass upon it. There is nothing of *command* essentially belonging to the instrument.

In respect to inventions, then, a patent is a grant by the state, of the exclusive privilege of making, using

¹ Brevet de duc.

and vending, and authorizing others to make, use and vend, an invention. It is a monopoly of the invention. The monopoly may be unrestricted in geographical extent, and so be coextensive with the authority of the state or government granting it, or may be confined to a certain territory ; so in respect to duration, it may be for an indefinite or a limited period ; and again in its nature or character it may be either absolute, or subject to certain qualifications and conditions. So again in respect to the persons who may become interested, it may be limited to the patentee personally, as is usual in grants of offices, or extend to him, his personal representatives and assigns.

CHAPTER II.

Principles and Motives of the Legislation on Patent Rights.

PROPERTY in an art, process, or method, is not, like most other species of personal property, susceptible of exclusive manual possession, and, therefore, is not of a description to arise in a very early and rude state of the laws and jurisprudence of a community ; for though a machine or a composition of matter may be

appropriated by exclusive possession, it is otherwise with the art of making the machine, and the method of compounding the materials, and these, as will subsequently be shown more particularly, are the subjects of the discovery, the exclusive right to which is granted by a patent. In respect to things that can be visibly and exclusively possessed, the producer or first occupier is acknowledged, by the laws of nature, to have established his right of property by his possession, and the laws then supervene to guaranty and protect the right. But the exclusive right to the use of a discovery in the arts, must originate in a conventional law: the law must be expressly passed or tacitly recognised, before this right of property can exist. This species of property arises from improvements in the arts, and it is acknowledged and secured only in an improved state of the laws.

Mr. Jefferson remarks upon the subject of patent rights: "It has been pretended by some (and in England especially) that inventors have a natural and exclusive right to their inventions; and not merely for their own lives, but inheritable to their heirs; and while it is a moot question, whether the origin of any kind of property is derived from nature at all, it would be singular to admit a natural and even an hereditary right to inventions. It is agreed by those who have

seriously considered the subject, that no individual has, of natural right, a separate property in an acre of land; for instance, by an universal law, indeed whatever, whether fixed or movable, belongs to all men equally and in common, is the property for the moment of him who occupies it; but when he relinquishes the occupation the property goes with it. Stable ownership is the gift of social law, and is given late in the progress of society: it would be curious then if an idea, the fugitive fermentation of an individual brain, could of natural right be claimed in exclusive and stable property. If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea; which an individual may exclusively possess as long as he keeps it to himself, but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character too is that no one possesses the less because every other possesses the whole of it. He who receives an idea from me receives instruction himself without lessening mine; as he who lights his taper at mine receives light without darkening me. That ideas should freely spread from one to another over the globe for the moral and mutual instruction of man and improvement of his

condition, seems to have been peculiarly and benevolently designed by nature when she made them, like fire expansible over all space, without lessening their density in any point; and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot in nature be a subject of property. Society may give an exclusive right to the profits arising from them as an encouragement to men to pursue ideas which may produce utility. But this may or may not be done according to the will and convenience of the society, without claim or complaint from any body. Accordingly it is a fact, as far as I am informed, that England was, until we copied her, the only country on earth which ever, by a general law, gave a legal right to the exclusive use of an idea. In some other countries it is sometimes done in a great case and by a special and personal act; but generally speaking other nations have thought that these monopolies produce more embarrassment than advantage to society; and it may be observed that the nations which refuse monopolies of inventions are as fruitful as England in new and useful devices.”¹

¹ Letter dated August 13, 1813. *Journal of the Franklin Institute*. Vol. XVII. p. 97. Feb. 1836.

M. Renouard, the author of an elaborate French work on patents, goes into a particular discussion of the question whether an inventor has, by the principles of universal equity, and independently of the positive law, an exclusive right to his invention; and he very satisfactorily establishes the conclusion to which every mind is constrained to yield assent, that no such natural right exists. Indeed there is no plausible ground whatever on which to rest such a right, since the fact of one person being the first inventor or discoverer, affords no pretence for disfranchising others of the right in their turn, of making and using the same discovery.

If then there is no such original right, the question naturally arises, whether the law, granting the exclusive privilege to an inventor, is not unjust? whether it does not wrong other persons, by depriving them of their natural rights? It undoubtedly does take away rights which they would otherwise have, but it does not thence follow that it is unjust. It is the effect of many laws to take away rights which men would enjoy, if each one existed in a state of entire independence of all others, if such a condition were possible; but it does not thence follow that the laws are injurious to any one, since they give more than an equivalent for what they take away. The rights

taken from the members of the community generally, are, first, that of beneficially inventing the same thing, independently of the prior invention, and that of using and vending it for a limited time ; and second, the right of profiting by the prior invention or discovery of another, for a limited time. This last right is evidently subject to some qualification, for it is certainly just that the inventor should have a greater advantage of his invention than others, whereas if he is exposed to a universal competition in the manufacture and use of his invention, the probability is, that others will turn it to better account than he can himself, since the chances are very great that some one may possess greater advantages for prosecuting the manufacture and selling the article. Without some assistance from the legislature, therefore, he will be deprived of what he is equitably entitled to. If it be then admitted that he is equitably entitled to the exclusive use and sale for a time, against all others who do not make the same invention independently of him, and without deriving any hint or facility from his prior ingenuity or experiments, we have sufficient ground for a law giving him the exclusive right against *all* others for a time, since it is a matter of too much difficulty and intricacy of proof, to distinguish the cases of others who have made the same invention

without any assistance from his ingenuity, from those of mere imitations. The law, in order to be practicable and convenient to be administered, must give the exclusive right. To this point the law is only an equitable regulation, which does not *propose* to deprive others of any right in behalf of inventors, but *incidentally* deprives them of a right, which they would otherwise have, because it is necessary for the purpose of doing justice to inventors.

The granting of patents is not, accordingly, a mere matter of favor, as it has sometimes been represented by judges,² but an equitable and just claim upon the government, as much so as the claim to protection of individual industry and private property. "The patentee," says Lord Eldon, "is a purchaser from the public, being bound to communicate his secret to the public at the [expiration of his patent]."³ This right is recognised in very strong and absolute terms in the decree of the French National Assembly.⁴ The language is, "Every new idea, of which the manifestation or development might be useful to society, apper-

² "Although," says Mr. Justice Bayley, "the thing may be new in every particular, it is in the judgment of the Crown whether it will or will not, *as a matter of favor*, make the grant."

⁴ B. & Ald. 552.

³ 3 Meriv. 157.

⁴ January 7th, 1791. Renouard, p. 423. Ed. of 1825.

tains originally to the person who has conceived it ; and not to regard a discovery in industry as the property of the discoverer, would be to attack the rights of man in their essence." This language is, however, too comprehensive, as we have already suggested, that the granting of a perpetual exclusive right to an invention, would be a material retrenchment of the rights of others, and so the National Assembly doubtless considered it ; for after this preamble they proceed, not to grant such a perpetual privilege, but only a temporary monopoly.

M. Renouard^b remarks, that " an inventor has not, independently of positive laws, any exclusive property in his invention, any longer than he keeps it secret." That is, others have a right to make the same discovery themselves independently of him, or to avail themselves of the inventor's disclosure of his secret," and this conflicting right of others, intercepts, and in many cases in fact entirely defeats, any advantage to the inventor from a right universally admitted ; for he often cannot use his invention, and at the same time keep it secret, and thus the very attempt to obtain the benefit of his discovery, forfeits it. This strengthens his claim on society, for it is precisely the

^b P. 32, c. 2, s. 1.

case of an individual too weak to protect himself, and who, therefore, asks the protection of the community. If he is able to keep his secret, and yet turn it to profitable account, his case is that of the head of a powerful party or clan, who is able to defend and protect himself without the aid of a superior power. Such an inventor is in a condition to make his own terms with the community for the surrender of his secret ; and when the terms proposed by the laws are not satisfactory to him he may reject them. This is, however, true of but very few inventors. They can, in general, at most only lock up their secret in their own breasts, not being able to turn it to any advantage to themselves, except by means of a law enacted in their behalf. Their claim on the community therefore, for interposition in their behalf, is exceedingly strong ; they are entitled to assistance from the combined authority of the community, and it is essentially necessary to them.

Though *property* in a discovery, therefore, like that in land, originates in and is created by legislation, the *right* to such property exists to an imperfect degree, independently of the positive laws. In this view Mr. Rawle remarks, upon the provisions of the constitution of the United States on this subject, that it was not intended thereby to create rights, but merely to

regulate those already existing.* The inventor has a *right* to keep his secret, and if he discloses it he has a just claim to remuneration and reward, according to the amount of his expenditure, and the importance of his improvement.

“ Many people form an erroneous notion of the kind of merit, and the degree of application, requisite for making improvements in manufactures. They seem to imagine that most of those improvements are lucky hits, which it is only surprising that nobody ever made before ; and so they are unwilling to bestow rewards with liberality on such as they conceive owe their success to fortunate accident, rather than to merit. Yet a little reflection may show how erroneous this opinion is. The great mass of useful inventions is made up, and must be, not of what is altogether new, but of improvements in what is already practised. Such improvements, it is also to be remembered, are more eagerly sought after, and by a greater number of competitors, when manufactures have so far advanced as to employ many hands in a single branch. Since then it must be a very limited branch that employs only a thousand persons ; how is it probable, that in a business where at least that number have been

* Rawle on the Constitution, c. 9, p. 102. Ed. of 1825.

employed for years, any improvement can come to be discovered by chance? Is it not obvious that all the improvements mere chance could bring about, are likely to be discovered at a very early period of such a business; more especially under the operation of a patent law, to give to every eye the quick-sightedness of self-interest? Yet persons are heard thoughtless enough to exclaim, of such an improvement as James Watt's on the steam-engine, 'How simple! and how wonderful nobody ever found it out before!' They that say of such an invention, 'How simple!' should consider what they mean. If the simplicity they speak of, refers to the adaptation of the means to the end, they are quite right. In this acceptance, simplicity is the very highest merit of an invention; for of all the means that can be used to effect a given end, the simplest are evidently the best. But if when they say, 'How simple!' they mean how easy to be done, and how easy to be found out, they are as wrong as they can be. For if the contrivance was thus easy to be hit upon, why had it been missed by the numerous persons engaged for so many years before, in the making, in the working, and even in the improving of steam engines? The very simplicity of an invention, which leads the inexperienced to infer little merit or application in the

inventor, is most commonly the sequel of complications, which in succession have been contrived by him, and in succession been rejected. Indeed, who that ever cast a glance of intelligent observation upon our manufactures, or that has ever been struck with the combined simplicity and efficacy of the means employed, can do otherwise than infer that any one of the means that he admires, must have been selected for superiority, when perhaps a thousand others have been rejected? So far from simple means of effecting an end being proportionably obvious to adopt, whoever has opportunities of watching young persons beginning to cultivate any branch of experimental science, may observe that complicated means to effect an end are those they try first; and indeed, whenever there is witnessed, as in the case of Watt, an early or immediate adoption of simple means to accomplish a desirable end, it is safe to infer the possession of great powers, such as experience, in their exercise, can alone inspire. In the attempt of Watt, the only circumstance that can be attributed to chance, was that a working model of a steam engine came into his hands to be repaired. But what made that model suggest to his mind, inquiries and doubts that had never struck any mind before? No one can read the simple account of his discovery, as given by himself,

in his Notes to Dr. Robinson's Works, without being satisfied that when that model came into his hands, it was to undergo a scrutiny, such as the steam engine in no form had ever before been subjected to."⁷

Another reason for granting this species of monopoly, is, that the whole community has an interest in the advancement of the useful arts, since the greater the perfection to which they are brought, the greater will be the amount of necessities, conveniences, comforts, luxuries and amusements, within reach of every one, for the same expense. This presents a good reason, not merely for indemnifying the inventor or improver of an art, for his expense of time, labor and outlay, but also for giving him an absolute reward. It would be considered paltry to maintain that a general, who had achieved a victory, was sufficiently compensated by his pay, during the time he gave to the achievement. He is considered a benefactor to his country, and as such, entitled not merely to his pay, but to a *reward*. So is the inventor of a useful art a benefactor to his country, and to the whole civilized world, and as such entitled to a *reward*. It is a debt due to him; not one that he can demand by virtue of the law of nature, and independently of all civil insti-

⁷ Westminster Review, No. 43, for January, 1835.

tutions, but one which it ought to be the early care of the positive laws to acknowledge and satisfy.

Without some encouragement and hope of indemnity for expenses, held out by the law, many inventions, after being made, would not be rendered practically useful. "Very few inventions in manufactures are perfect, when first contrived and introduced into practice. Much further improvement is often needful, in order to overcome unforeseen difficulties, and to meet all the wants of a manufacture conducted on a large scale. Prejudice, too, has to be overcome. The sanction of experience is wanting to confirm the advantage, and still more the permanence of the improvement. After Watt had taken out his patent, he was six years before he succeeded in making one steam engine according to his plan, matured in all its principles at least, as his patent and specification show it to have been. Part of this time was lost, perhaps, by inactivity ; another part by the failure of Roebuck, of the Carron Works, with whom he first associated himself, and perhaps a still greater part was owing to the imperfection of machinery in his time. But, making allowances for these causes of delay, still it is true that at least three or four years were necessary, to obviate the practical difficulties that lay in the way of making such an engine well, for the first time. Such difficul-

ties, and others too, attend all important new inventions in manufactures. The bringing of them into notice, the gaining of confidence in their permanence and worth, and the overcoming of prejudice against them, on account of their very novelty, require time, care, and much outlay. To insure success in such an undertaking, it is not unusual to spend years in overcoming the physical difficulties of a new manufacture, to employ travellers, and advertise extensively, in order to bring the invention into general notice, to make a great outlay in order to establish the new manufacture, merely as an example for others to follow, or sometimes a greater outlay in order to get it established on a large scale, so as to admit of a subdivision of labor, and the perfection of it in all its parts. Now without the encouragement of a patent, how is any man to engage in a novel and expensive process, if the moment he succeeds, at the cost of all this outlay, he must be sure that his neighbors, who were cautious enough to shun all chances of loss, will come into competition with him, and make the remuneration of all this outlay impossible? A landlord, possessing a farm that could not be made productive, till after the lapse of years, with continued cultivation and much outlay, will never get it rented without granting a lease; and unless he makes such a grant,

or undertakes the labor and expense himself, the farm will remain for ever unproductive. Quite similar is the policy of granting patents, which may be considered leases for the cultivation of unprofitable farms, of manufactures, granted partly to reward the merit of invention, and partly to remunerate the cost attending the introduction of the improvement, and its early and unprofitable cultivation. By so granting patents, the country may hope, at the end of their term, to possess the new manufacture, in a profitable form; whereas, by refusing patents, or withholding from them adequate protection, it will either not possess the inventions, or, if it do possess them, it will be in the form of unapplied and barren suggestions. Give the husbandman security that he may sit 'under his own vine, and his own fig tree,' and the magic of that security will raise the vine and the fig tree, where else would be the barren wilderness. Watt, it has been said, spent six whole years in bringing his invention into a good working state. The late Lord Norton, of Leith, the inventor of the patent slip, as a substitute for dry docks, lost the same time, before his patent became profitable to him, although he brought the invention early into use. A like loss of time prior to the invention becoming productive, appears from inquiry, to be an almost constant occurrence in important inventions.

Here is the authority of Mr. Farey, in the report" of the committee of the House of Commons, on the subject of patents, in June, 1833, "for saying, that the expense of making the first steam engine on the plan of Watt, was such as no maker could have been remunerated for, by any subsequent profit he could make, without the aid of what accrued from the patent, or some other extraneous source. And indeed, but for the security which Watt erroneously conceived the patent law to afford, there is little doubt that the invention might at this day have been sneeringly recorded by some author, styling himself practical, as a suggestion 'exceedingly ingenious in theory, but altogether useless in practice.'"⁸

The principles and motives of patent laws, then, are, 1, the securing to the inventor the remuneration of his outlay ; 2, a reward for his ingenuity, and the benefit he confers on the community ; and 3, to encourage and stimulate the inventive faculties of men for the benefit of society.⁹

⁸ Westminster Review, No. 43. January, 1835. p. 94. Foster's Am. Edition.

⁹ Per Story J. 1 Mason R. 182. See Holt's N. P. C 58. n. Though monopolies, in the eye of the law, are odious, says Lord C. J. Erve, 2 H. B. 500, the consideration of the privilege created by this patent is meritorious, because, to use the words of Lord Coke, the inventor bringeth to and for the commonwealth a new manufacture by his invention, costs and charges. But

The invention of lithographic printing by Senefelder has been instanced in illustration of the labors and difficulties of an invention, and the influence of motives in stimulating the inventive faculties. He was the son of an actor, and had himself written a play, which, however, he was too poor to get printed. To overcome this obstacle he conceived the bold idea of inventing a cheaper mode of printing than with types. "Nor was the success less wonderful than the attempt. Not by any chance, not by a first lucky hit, but by contrivance, by experiment, by perseverance amid disappointment, and by knowledge obtained from failures, he succeeded in accomplishing this daring effort of his genius, and discovering an art which, if it cannot vie with other ways of printing for extensive utility, will yet, for inventive merit, and with reference to the hopelessness of the rude but simple materials whereby it is worked, ever be ranked among the most wonderful of human inventions." ¹⁰

The grounds and motives of this species of legisla-

Lord Kenyon says, "I confess I am not one of those who greatly favor patents; for though in many instances, and particularly in this, the public are benefited by them, yet on striking the balance upon this subject, I think that great oppression is practised on inferior mechanics by those who are more opulent." 8 T. R. 98. This is quite an extrajudicial reason.

¹⁰ Westminster Review, No. 43, for January, 1835.

tion being, then, in the first place, to indemnify inventors, in the second to secure to the public the benefit of invention, and stimulate ingenious minds to make improvements, and, in the third place, to reward the inventors as public benefactors, according to the importance of their inventions, it follows that the earlier or later disclosure of the secret, and the investing of the public with the benefits of the discovery, are essential conditions of the grant of protection and reward. It is, as M. Renouard says, an *exchange* between the two parties, the inventor on one side, who grants the community a new art or machine, and the community on the other, which grants in return to the inventor, indemnity and compensation. But as the publicity of the invention is a matter of public interest more especially, it may be dispensed with by an act of special legislation, a right to which is reserved by the government, to be used, when, from fear of benefiting a public enemy or a foreign competitor in the market, the advantages are supposed to be on the side of secrecy;¹¹ though this latter ground is now mostly abandoned, and the former is, at the most, but occasional and temporary.

¹¹ Renouard, c. 7, s. 2, p. 276. Ed. of 1825.

CHAPTER III.

Different Kinds of Encouragement to the Arts.

THE inventor, then, having a just claim to remuneration and reward, we come next to the question what kinds of remuneration and reward are practicable and suitable. And in this respect the community is not necessarily restricted to the granting to the inventor a preference in the enjoyment of the advantages of the use of his invention. Rewards in money have in many instances been promised before hand, or awarded subsequently, for discoveries. The divine honors, paid by the Greeks and other ancient nations to those who were public benefactors by their useful discoveries, originated in the principle upon which modern patent laws are founded, though the kind of reward bestowed in the two cases is different. In some instances the inventor cannot be rewarded directly out of the fruits of his invention. This is the case with many discoveries in science. Were any philosopher to discover a certain and easy method of squaring the circle, he could not be rewarded by a grant of a monopoly of the advantage, if it consisted in mere calculation. The British government offered a reward for an improve-

ment in the mode of ascertaining the longitude. Public grants have been made to Mr. Babbage in consideration of the utility of his calculating machine. Many other instances might be enumerated in which a monopoly of the invention was not considered a practicable or a suitable or an adequate compensation to the inventor. The French government, accordingly, by a law of 1791,¹ provided for the annual distribution of 300,000 livres to artists for labors and discoveries in the useful arts, no part of which is to be given for improvements for which patents are taken out. But this species of reward is liable to much abuse by imposition on the officers of the government to whom the decision on claims is committed, and also by partiality and favoritism on their part in assigning the reward. A writer, already cited,² instances the 5000 guineas paid to Dr. Smith for the "discovery of nitric fumigation to prevent the communication of contagion," and says, were the reward to be granted now, "when time and experience enable the public to estimate the value of the nostrum, five pence might be considered a reward somewhat above its value."³

¹ Renouard, p. 453.

² Westminster Review, Jan. 1835, No. 43.

³ M. Renouard considers the subject of encouragement of inventions by rewards, and states the objections to it very fully, c.

In the great mass of instances of useful improvements, however, a temporary monopoly is not only the most appropriate reward, since it is the direct fruit of the improvement, and the most equitable, since it is graduated according to its utility, in the public estimation ; and the most convenient, since, as M. Renouard justly remarks, the inventor is saved from the mistakes, favoritism and prejudices of censors, and the public from being imposed upon by charletans and pretenders. This system has accordingly been adopted throughout the civilized world as the most suitable general mode of rewarding improvements in the useful arts ; not excluding other modes, however, in special cases.

The writer in the *Westminster Review*, already cited,⁴ mentions a third mode of encouraging improvements in the arts adopted in some countries, by the establishment of professorships for the purpose. Where a regular routine of duties is to be performed, that are within the grasp of minds not endowed with any extraordinary inventive power, or transported by enthusiasm, professorships may be very usefully instituted.

2, s. 3, p. 42. He does not oppose this mode of encouragement on the general objection to all bounties as interfering with the freedom of industry and checking competition, since this ground of objection is as inconsistent with patent laws themselves, as it is with other modes of encouragement.

⁴ No. 43, January, 1835.

So salaries, as well as other incitements, may be held out as rewards for inventions, as well as for excellence in the practice of any art, or the knowledge of any science. The appointment of Poet-Laureate in England is of this description. So provision may be made by the public in many cases for defraying the expense of a course of experiments in some particular branch of industry or science, and, in fact, a large part of the magnificent discoveries in science, by which modern times have been illustrated, have been the fruits of such public provisions. But it is not practicable to carry this system of encouragement to all the innumerable useful and ornamental arts by which the condition of men is ameliorated, and civilized society adorned. A stimulus must be applied, and a helping hand held out to genius in the lowest walks of life, in the workshops and in the fields. The encouragement should be proffered freely, so as to be attainable without solicitation, and without the intervention of influence, power, and great names, so that genius may work its way in solitude, borne forward only by the impulse of its own enthusiasm. For this purpose a limited monopoly, a temporary enjoyment of all the advantages of a discovery, is not only the most appropriate, but by far the most effectual encouragement in a great majority of improvements in the useful arts.

That the monopoly should be only temporary is quite obvious, for it would be wrong to shut out all others from the advantages of a discovery of an improvement for all time in favor of the first discoverer. This would be more objectionable than the doctrine of territorial dominion in right of discovery. It would be a wrong to the community at large. It would, besides, be highly prejudicial and even dangerous to the general interest, to lock up the useful arts that may minister to the necessities and wellbeing of the great mass of society in a few hands. All laws of this description, therefore, give only a temporary monopoly. They offer a compromise between the inventor and the rest of the community, by which each party surrenders something, and it is proposed that each shall receive an equivalent.

CHAPTER IV.

General Provisions of the Patent Laws.

THE first question in devising a patent law relates to the subject for which a patent shall be granted. The British and American laws only allow of patents for a manufacture, or art, machine or composition of matter,

that is something done, and the monopoly extends only to the particular mode of doing it. In the investigations of a committee of the British House of Commons in 1829, some of the persons examined by the committee, were in favor of extending the privilege to a *principle*, the use, for instance, of the expansive force of steam as a mechanical power. The notion of those in favor of thus extending the privilege, was, that if an inventor had discovered this application of the power of steam he should have the monopoly of it for the accustomed period, not only in the way particularly specified by him, but in all other modes, or in other words, his patent should be a prohibition of all use of this power for mechanical purposes during the period of the patent. But others were decidedly opposed to this extension of the exclusive privilege,¹ and I cannot but think that these

¹ This subject is discussed at pages 11. 15. 35. 36. 39. and 76. of the Report, and perhaps in others also, which I have not noted. The report consists of a folio volume of two hundred and sixty closely printed pages. It is made up of information communicated to the committee, and opinions given, by nineteen different persons, conversant in the subject of inventions, and patent laws and patent rights in Great Britain and other countries. The persons examined were John Taylor, Davies Gilbert, John Farey, Mark Isambard Brunel, Arthur Aikin, Charles Few, Francis Abbott, William Newton, Moses Poole, Joseph Merry, Samuel Morton, Samuel Clegg, John Millington, Walter Henry Wyatt, John Macarthy, Benjamin Rotch, John Isaac Hawkins, Arthur

latter are in the right, since the production of a principle, in practical and useful application, is, in general at least, more difficult than the mere conception of the principle itself.*

A person who has merely suggested a principle, as, for instance, the use of the magnetic power for mechanical purposes, has as yet done nothing that is actually useful to the community, unless he has demonstrated the mode of its practical execution. Why then should he who has as yet rendered the public no actual service, be invested with a monopoly which is to be a barrier for fourteen years, more or less, to the ingenuity of others who otherwise might render an actual service to the public by accomplish-

Howe Holdsworth, and Thomas Aspinwall. One hundred and sixty pages of the report are taken up with the remarks, opinions and statements of these persons, the rest, being the appendix, is occupied by Mr. Farey's statement of the decisions of the British courts, and the patent laws of other countries, communicated by him to the committee. A large portion of the statements of these persons relates to the tedious and vexatious process of taking out a patent in England. All the parts of the report relating to this subject have not a great interest in the United States, except as they supply an indirect and implicit commendation of the simplicity and practical facility of the proceedings and forms in taking out American patents. The result of the investigation was the additional British patent act of 1835. This report will frequently be referred to in the present work, under the abbreviation Rep. of Comm. of Br. H. of C. 1829.

* Statement of Mr. John Taylor. Rep. of Comm. of Br. H. of C., 1839, p. 13,

ing the more difficult task of putting his theory in practice? Perhaps, however, he has exhibited the principle in one or more modes of execution. But in this case the public may be just where they were, in respect to all other modes essentially different from his, and if he ought not to have a monopoly of the naked principle without any practical application, his monopoly ought to be confined to the practical application which he has invented. It may happen, it is true, that his practical method of applying the principle may suggest to other minds a better method. This is no doubt sometimes the case. But allowing others to avail themselves of his invention as materials, as a part of the general stock of science, to work with, and do what he has not done, limiting his monopoly to the method which he has verified by experiment, is not dealing hardly with him, since it is reasonable that he should not be entitled to an exclusive privilege of his method without specifying and publishing it, and when it has been published it fairly becomes a part of the general stock of knowledge and experience for the common use, for all purposes excepting the particular applications covered by his temporary monopoly. If however the announcement of the principle is of great public utility by opening a new field of invention to others, it is a reasonable subject of reward in some

other way than by an exclusive use. The very importance and fertility of the principle is a reason for not shutting it up by a monopoly, even for a short period.

Another question as to the kind of invention for which patents shall be granted relates to those which are merely introduced from abroad. The laws of England, France, the Netherlands, Austria and Spain, all grant patents to persons who introduce inventions from abroad, though they may not themselves be the inventors.³ M. Renouard, an able French writer on this subject, disputes the expediency of granting such patents. The persons examined before the committee of the British House of Commons, in 1829, did not object to those patents, but they were not made a subject of particular investigation, and this was in itself a tacit admission of their expediency. The laws of the United States have never granted patents except to the inventors themselves, and until 1836 patents were not granted, except by special act of congress, to any excepting citizens or residents of the country. But by the law passed that year,⁴ patents are now grantable to aliens domiciled abroad for their own in-

³ Rep. of Com. of Brit. H. of C. 1829. Appendix; and see Appendix to this volume.

⁴ July 4th, 1836. c. 357.

ventions, but a condition is annexed which is not imposed upon other patentees, viz. that they shall forfeit their patents in case they shall, for the space of eighteen months, fail to put or continue their invention on public sale on reasonable terms in the United States. The object of this provision apparently is to prevent foreigners from taking out patents here, merely to prevent their inventions from being practised by others in the United States, that they may thus command our market for a supply, from a foreign manufactory, or, in other words, secure a foreign monopoly of our market. This is a very reasonable condition, in regard to this sort of patents.

The French law imposes a similar condition on all patents, by providing that they shall be forfeited if the invention be not reduced to practice within two years, though it does not require the continuance of the use for any particular period. The ground of this provision may be the presumed abandonment of the invention by the inventor, so that the words of the law, if they expressed its principle, would be that a patentee who does not reduce his invention to use within two years from the date of his patent, shall be presumed to have dedicated it to the public. The law of the Netherlands follows that of France.* The

* Law of Jan. 25th, 1817, art. 8.

laws of Austria and Spain are still more strict, and require the invention to be reduced to practice under the patent within one year, under penalty of forfeiting the privilege.⁶ The law of Great Britain has no such requisition; nor has that of the United States, excepting in the case above mentioned, of an alien patentee domiciled abroad.

A question was raised in the investigations of the special committee of the British House of Commons in 1829, whether patents ought to be granted for patterns for calicoes, ribbons, &c.⁷ But this seems rather to be a question under the law of copyright.

Another difficult subject of legislation relates to the novelty of the invention. The very term invention implies novelty, but where must it be novel and when must it be so?

The English, French, Belgian, Austrian and Spanish laws are satisfied if it is novel within the country; if it has not been described in any printed work at home or abroad, then, though it may have been practised abroad, still it is a good subject of a patent by either of those laws. Some of the laws go farther; in England the invention is new, though described

⁶ Austrian Decree of Dec. 8th, 1820, ch. 4, art. 23; Spanish law of March 27th, 1826, art. 21.

⁷ Rep. p. 27. 34. 90.

abroad in a work circulated abroad, if not described in some publication circulated in England, and it has not been used there. According to the French law, if the thing has been described in any printed and published work, whether in France or elsewhere, it is no longer novel.⁸ And M. Renouard considers a publication in the French or a foreign language to have the same effect. The Austrian,⁹ Belgian,¹⁰ and American laws agree with that of France.¹¹ That of Spain, has a peculiar provision, namely, that the invention, as far as its novelty is to be affected by a previous publication merely, is to be considered novel, unless it is described in some book, engraving, picture, model or plan in the Royal Conservatory of Arts.¹²

Such is a general outline of the provisions of the patent laws as to the place where the invention must be new.

Secondly, when does the law require that the invention shall be new, at the time of the invention being made by the applicant for a patent, or at the time of his application, or at the date of his patent? The American law is satisfied if it be novel at the

⁸ Law of January 7th, 1791, art. 16.

⁹ C. 6, art. 27.

¹⁰ Art. 7.

¹¹ French Law of Jan. 25th, 1817, art. 8; act of congress of July 1836, c. 357, s. 7.

¹² Law of March 26, 1826, art. 21.

time of the invention by the applicant ; the French, Belgian, Austrian and Spanish laws seem to be satisfied if the invention is original at the time of the applicant for a patent having made his invention, if he succeeds in first obtaining a patent. But by the American law the first inventor is entitled to a patent, unless, by his unreasonable delay he forfeits the privilege, though a subsequent inventor anticipates him in taking out a patent ; and the earlier patent thus taken out by the later inventor will be superseded by that of the first inventor, though subsequent in date. By all these laws, if the first inventor obtains his patent before others, and by the American law, whether he obtains it before or after others, his patent is good. This refers the question of novelty to the time of the invention. The English law, on the contrary, as to the novelty of the invention, has, heretofore referred to the date of the patent. By that law if any one else had pirated the invention and put it into use, even after the first inventor has applied for his patent, his privilege was defeated. This defect in the British law is much dwelt upon by the persons who made statements on the subject before the committee of the Commons in 1829.¹³ The British act, passed

¹³ Rep. p. 9. 10. 18. 19. 20. 74. 75. 76. 82.

in 1835, provides that if an applicant believes himself to be the inventor, but it is proved in the sequel that his invention was not original and new at the date of the patent, his patent may, notwithstanding, be confirmed by the council of state. This provision is an approximation to the American law upon this subject, being intended no doubt to remedy the former defect of the British law and the abuses and frauds which had taken place under it. How the provision will work in this respect remains to be proved. The construction put upon the American law by the courts is much more just, simple and effectual, since it puts the patentee upon his fair equitable rights in the courts, notwithstanding that a later inventor or piratical infringer may have anticipated him in the date of his patent.

Such is a general outline of the provisions of the patent laws upon the subject of the novelty of the invention, the more particular construction of which, in the United States especially, will be considered subsequently.

Another important provision of the patent laws is that which determines what persons, as to their national character, shall be entitled to take out a patent. And in this respect the laws of the United States, Great Britain, France, the Netherlands, Spain and Austria, now agree in conceding the right to foreigners

domiciled abroad as well as to citizens, or to these and resident foreigners. The law of the United States of 1793 restricted the privilege to citizens, then extended it to aliens resident in the country for a certain period, and finally, in 1836, to aliens domiciled abroad ; still however making a distinction by requiring them to pay a higher fee than citizens and aliens resident in the United States for one year who have made a formal declaration of an intention to become citizens. But foreigners have been in the practice of heretofore obtaining patents by special act of congress.¹⁴ France,¹⁵ Spain, the Netherlands,¹⁶ mentioned above, permit it, and that of France¹⁷ provides for the registering of assignments, that the public may have notice of them. The Austrian law provides that assignments may be made on special permission of the emperor.¹⁸ The American law recognises the validity of an assignment made before the patent is taken out.

¹⁴ I understand from Dr. Jones, who is familiar with all the law and practice upon this subject, that not one of the patents granted in the United States on special acts of congress, is now in use.

¹⁵ Law of January 7th, 1791, and of March 27th, 1826, art. 9.

¹⁶ Law of January 25th, 1817, art. 19.

¹⁷ Law of May 25th, 1791, art. 15.

¹⁸ Regulation of January 25th, 1817, art. 11.

A patent, according to the definition already given, is a grant; certified by a written document. The law must accordingly provide the steps necessary to be taken to obtain this grant. More preliminary precautions would be necessary in making it, if it were absolute, but, since it is taken by the patentee, subject to all the provisions, and conditions, expressed in the patent itself, and the law, in virtue of which it is granted, and confers no right whatever unless the patentee brings himself within those conditions, and, on the other hand, if he brings himself within those terms and conditions, his case is one for which the laws intended an exclusive privilege, it does seem to be necessary, to guard the grant with great formalities and preliminary investigations. The French, Spanish, and Belgian patents, contain a clause, that the government does not, by granting the patent, guaranty either the novelty or utility of the invention. But every patent is subject to a variety of conditions, provided for by the laws; so that it is on the whole nothing more than a certificate, that the patentee, having paid the legal fee and made oath that he is the inventor of a machine, method, or composition of matter, described in his specification, if he has really invented such a machine, it is useful, &c. &c., shall be entitled to an exclusive use and sale of it for the term of years

specified, but if he fails in any of these requisites he shall be entitled to no privilege at all. This is the practical construction of patents, as well in the United States, as in all the other countries above mentioned.

Besides the conditions already mentioned, on which the validity of the patent rests, another, common to all the patent laws of the countries already mentioned, is, that the patentee shall make a full, and clear description of the thing, both to advertise others of the object and extent of his privilege, and at its expiration to give the public the benefit of his invention as a consideration for the grant of the privilege. The law itself gives one security for a compliance on the part of the patentee, with this condition, since by all the above patent laws, his failing to comply, defeats his privilege. Now, one of the most difficult questions as to legislation on patents, is, to determine whether to leave the subject wholly to the operation of this condition, permitting the patentee to specify, as he chooses, at the hazard of not securing his privilege in case of his not giving a full, clear, and exact description, or to attempt, by a preliminary examination of the specification, to give the public an additional security for a proper specification. The problem is, whether it is most expedient to leave the question of the novelty and utility of the invention, and the suffi-

ciency of the specification, to the discretion of the patentee, or refer these questions to the discretion of some officer or board.

All the patent laws do in fact, by their very terms and structure nominally commit a discretion on these questions, to some executive officer or board. And the exercise of some degree of discretion on these questions, seems to be necessary, since it would be derogatory to the dignity of the government, and inconsistent with ordinary administrative decorum, to grant even pretended exclusive privileges for the practice of scandalous, or grossly immoral, or illegal arts and processes. It was on a similar ground that Napoleon Bonaparte, when first consul, hesitated to sign a patent for what seemed to him a frivolous contrivance in acoustics, called the invisible woman, though his scruples were overcome in that particular case, by the introduction of the clause into the patent itself that the government did not, by granting it, guaranty the novelty or utility of the invention. The necessity of the exercise of some degree of discretion in this respect, arises from the fact of the direct agency of the officers of the government, in granting patents, whereas, in the similar case of copyrights, there is no agency of any such officer in securing the privilege in England; and in the United States the law does

not forbid the clerk of the district court to receive the copy of a work, however immoral and illegal it may be, and thus the proprietor obtains just as good and authentic a recognition of an exclusive privilege to publish his work, as a patentee of an invention, which is liable to a similar objection, would obtain by his patent. In either case no privilege is in fact guarantied, since it is defeated by the law. But no complaint has been made in the case of copyrights, whereas that of patents has been much discussed. There is a difference, however, in the two cases ; first, on account of the direct agency of the higher officers of the government, in granting patents, which renders the question of decorum and dignity, of more weight in that case ; second, the interest of the public in having a full disclosure of the process of a useful manufacture ; and third, inasmuch as a patent trenches upon privileges, which other persons would have had, if the invention had not been made or patented. Though the patent laws are generally so worded as to give the right of exercising a discretion, as to granting the patent, and the officers entrusted with the execution of the law would no doubt exercise that discretion in a case of palpable immorality or illegality, yet no instance has occurred, as far as I am informed, of a rejection of an application for a

patent upon those grounds. In the examinations already mentioned, by the committee of the House of Commons, in 1829, the whole discussion related to the interest of the public; firstly, in not allowing an imposition upon the community, by a multiplicity of groundless patents, and secondly, in securing to the public a sufficient description of the thing patented, that they might have the benefit of it at the expiration of the period for which the patent is granted.

It is evidently of importance to the public that sufficient specifications should be given, for the reasons above stated, and also the additional one, that other members of the community ought to have distinct notice of the extent of the exclusive privilege claimed that they may not unwittingly infringe upon it.

This subject was one of the leading topics of inquiry by the committee of the Commons,¹⁹ and all the persons there examined, agree, and indeed in all the records of jurisprudence upon this subject the counsel and judges also agree, that it is of importance to the public that specifications should be clear and definite. But the great difficulty is in devising any mode of securing this object, other than the condition that a

¹⁹ Rep. p. 7. 15. 24. 27. 30. 38. 41. 42. 44. 46. 55. 56. 67. 68. 74. 76. 77. 80. 84. 98.

defect in the specification shall defeat the privilege of the patentee either partially or wholly. The mode proposed, and indeed the only mode that is practicable, is to invest some officer or board with the preliminary jurisdiction of patents in these respects. Now, as already remarked, the very phraseology of the patent laws does generally invest the executive officers of the government with this discretion.

Mr. Jefferson, in a letter written by him in 1813, respecting Oliver Evans's patent for improvements in flouring mills, which has been the subject of much litigation, incidentally states some circumstances that are applicable to our present subject. He says, "I know well the difficulty of drawing a line between two things which are worth to the public the embarrassment of an exclusive patent, and those which are not. As a member of the patent-board for several years, while the law authorized a board to grant or refuse patents, I saw with what slow progress a system of general rules could be matured. Some, however, were established, by that board. One of these was that a machine of which we were possessed, might be applied by every man to every use of which it was susceptible, and that this right ought not to be taken from him and given to a monopolist, because he first, perhaps, had occasion so to apply it. Thus, a screw for crushing

plaster, might be employed for crushing corn-cobs; and a chain pump for raising water, might be used for raising wheat; this being merely a change of application. Another rule was, that a change of materials should not give title to a patent, as the making a plough-share of cast rather than wrought iron; a comb of iron instead of horn or of ivory; or the connecting of buckets by a band of leather rather than of hemp or iron. A third, was that a mere change of form, should give no right to a patent; as a high-quartered shoe instead of a low one; a round hat instead of a three-square; or a square bucket instead of a round one; but for this rule all the changes of fashion of dress would have been under the tax of the patentees. But there were still abundance of cases which could not be brought under rule until they should have presented themselves under all their aspects; and these investigations occupying more time of the members of the board than they could spare from higher duties, the whole was turned over to the judiciary, to be matured in a system under which every one might know when his actions were safe and lawful. Instead of refusing a patent in the first instance, as the board was authorized to do, the patent now issues of course subject to be declared void on such principles as should be established by the courts of law. This business,

however, is but little analogous to their course of reading, since we might in vain turn over all the lubberly volumes of the law, to find a single ray which would lighten the path of the mechanic, or mathematician; it is more within the information of a board of academical professors; and a previous refusal of a patent would better guard our citizens against harassment of law-suits. But England had given it to her judges, and the usual predominancy of her example carried it to ours.”²⁰

Such is the experience in the United States, in the

²⁰ Journal of the Franklin Institute, v. 17, p. 98, 99, No. for Feb. 1836. Mr. Jefferson probably refers to the administration under the patent act of April 10th, 1790, which was in force until the act of Feb. 21, 1793, was passed, during which period he was secretary of state, and by that law, it was provided that it should be “lawful for the secretary of state, the secretary for the department of war, and the attorney-general, or any two of them, if they shall deem the invention or discovery sufficiently useful and important, to cause letters patent to be made out, &c.” By turning the matter over to the judiciary, he probably refers to the act of Feb. 21st, 1793, in which are incorporated the rules above mentioned by Mr. Jefferson. The matter handed over to the judiciary was not, however, precisely the same which had been committed to the above board; for the court does not exercise the discretionary power, with which the patent-board had been vested. There is an apparent inconsistency in the remarks at the close of the extract, for a tribunal, such as Mr. Jefferson describes the courts to be, in reference to the subject of patents, would be very little likely to mature a system “under which, every one might know when his actions were safe and lawful.” But the decisions of a judicial tribunal, proceeding in open court, where all interested parties are heard, are doubtless

matter of a board, invested with general discretionary power, as to granting patents. And I have not met with any other instance in which the whole question of making such grants has been referred to a board with authority to decide according to their opinion of the merits of the application generally.

In France the proceeding in granting patents is in some degree analogous to that suggested by Mr. Jefferson. There, applications are referred to a consultative committee, in one of the public offices. If the committee find the specifications or drawings insufficient, they ask the applicant for written explanations, which are annexed to the specification. "The committee," says M. Perpigna,²¹ "is merely instituted to guard the applicants from throwing away their time and their money, upon patents which would upon a trial be most certainly repealed. If, therefore, the committee find that the invention presented as new, is already patented, or become public property, they inform the petitioner of their opinion and invite him to renounce his demand, and withdraw the tax paid.

those, under which every one has a better prospect of knowing "when his actions are safe and lawful," than under those of any other tribunal.

²¹ French Law of Patents, English Ed. published in Paris, 1833, p. 51.

If, notwithstanding this warning, he persists in his demand, the patent must be granted to him, but he runs the risk of its validity, and takes upon himself the consequences;" in illustration of which he instances Raymond's application for a patent for paddle-wheels fixed at the stern of a steamboat, which the minister, on the suggestion of the consultative committee, advised him to withdraw. He however took out his patent, which was, after divers decisions, in the lower courts, finally repealed by the court of ultimate jurisdiction, on the ground that such paddles had been described in a work published in the United States."

The British patent act of 1835, affords an instance of discretionary authority in the king, by the advice of his council, to confirm a patent for a thing, of which the patentee, at the time of taking out his patent, thought himself the original inventor, though it may appear subsequently, that the thing was, at the time of taking out the patent, known, and used by others. This is a legislative act, to which the British parliament was driven by the doctrine of the English law, that if any one pirates and publishes a new invention, and reduces it to practice, before the patent of the inventor passes the great seal, though he is not chargeable with any

" *Perpigna on Patents*, Eng. Ed. Paris, 1832, p. 53. 54. 55.

negligence, he yet loses his right to a patent. This is a radical defect in the British law, to compensate for which parliament resorts to a very objectionable remedy, in conferring upon the king, under the advise of his council, a discretionary authority, instead of removing the defect itself, by testing the originality of the alleged invention, by a reference to what was known and used at the time when the invention was made, and not at that of sealing the patent.

Such is the experience, and such are the enactments, on the subject of the preliminary exercise of a discretionary authority in granting patents. It is true, that the act of congress of April 10, 1790, did not profess to refer it to the mere discretion of the board of patents whether to grant patents. It authorized them to cause patents to be granted for inventions, which they might consider *sufficiently useful and important*. But it is evident that by such a vague limitation of the exercise of the authority, it was, in effect, a matter of discretion with the board.

Now, it will readily occur, that this discretionary authority, whereby the functionaries of the government are empowered to act, as they may think expedient, is precisely the most unsatisfactory, the most odious, and most liable to abuse, that can be granted. It is that exercise of authority, which it is the especial

object of a great part of the legislation of every State to avoid. Rules are laid down, first by the legislators, and then as matters of construction and interpretation by the judges, that every one may know, to use Mr. Jefferson's expression, when his actions are lawful. But if a board may grant a patent when they deem the invention *sufficiently* useful or *sufficiently* important, or confirm one that is void by the law, where they are of opinion that there is some good reason for so doing, it is not in the power of an inventor to *know* whether he is entitled to a patent until this administrative board has exercised its discretion upon his application. The matter becomes one of solicitation, instead of being one of right, determined by definite rules.

Our patent laws, as do those of other countries, for the most part, treat the claim rather, as a matter of right, though the language imports a discretion to be exercised on the part of the administrative officers; for the law of 1793, said the secretary of state in the cases mentioned, *may* cause letters patent to be issued, and the act of 1836, adopts the same phraseology, substituting the commissioner of patents for the secretary of state. Neither act, says he, *shall* cause the letters patent to be issued. The phraseology of the sixth section of the British act of monopolies, taken in

connexion with the first, is equivalent. The phraseology of the French law is more absolute, and those of the other countries mentioned above follow more nearly the French law in this respect. The spirit of the administration of both the British, and our law has been, however, conformable to the phraseology of the French and other laws in this respect, or rather the latter laws have copied and followed the practical administration of the British and American laws. So that allowing room for the exception of extremely scandalous or trivial inventions, or palpably immoral and illegal ones, the applicant in practice, has been put upon the footing of a claimant of right, and not that of a mere solicitor of a favor.

Having considered the provisions for mere discretionary authority on this subject; we next come to a question of very great importance, and of not a little difficulty in legislation, in regard to the novelty and utility of the invention, and especially the sufficiency of the specification, which last is the subject with which we are here more particularly occupied. The question is, whether the law should submit these subjects to the preliminary decision of a board or tribunal, or leave the applicant, as the French law professedly does, and our law, and the British, as practically administered hitherto have done, to take out a patent for

any subject on whatever specification he may choose to make, upon his own responsibility, and at his own peril. We do not inquire here as to the exercise of a discretionary authority, but suppose the board of preliminary jurisdiction to investigate and adjudicate upon the subject precisely as a judicial tribunal does in the ordinary administration of justice, that is, according to the rules of the law.

This subject was one of those which occupied much of the attention of the committee of the British House of Commons, whose report has already been so frequently mentioned. A greater number of the persons examined by the committee, were in favor of the institution of such a tribunal, for the preliminary adjudication of all these points, though others were against it.²² Those in favor of it, referred to the French law as a precedent, whereas that law, as we have seen, is directly against it, as the French consultative board or committee merely recommend, and do not definitively decide any thing. The projectors of the British law of 1835, probably found some difficulty in constituting such a board, since they made no provision for it in that law.

²² Rep. p. 7. 15. 24. 27. 30. 38. 41. 42. 44. 46. 55. 56. 67. 68. 74. 76. 77. 80. 84. 98.

Such a board, invested with authority to make a preliminary definitive decision on the points of usefulness and novelty especially, is liable to very grave objections, since one party alone, the applicant, being before them, it is not usually possible to have such a full presentation of the case as is desirable in making a final decision, as it will depend on the members of the board itself to find the evidence against the claim, and any board or tribunal, however well constituted, is an unwieldy agent in collecting facts and precedents. Again, any board, proceeding *ex parte*, is open to the influence of favoritism. And then, in the early stages of an invention, there are much less means too of obtaining facts, bearing on the questions of its novelty or utility, than afterwards, when the thing has been in use and has become known. Again, there is very little probability of so much time and labor being bestowed upon the investigation, as in a case presented by opposing parties, spurred on by interest on each side, and excited by the contest. And it is another very material objection that the applicant is subjected to very great expense and trouble in the threshold, before he can have fully ascertained whether his invention is worth pursuing. Notwithstanding these objections, the projectors of the act of congress of 1836, have attempted to form a tribunal of this description, by authorizing

the commissioner of patents to reject the application for a patent on various grounds of objection to the merits of the invention, as well as on account of defects in the specification ; and in case of the applicant's still persisting in his claim, the matter is referred to a board of examiners appointed by the secretary of state, before whom the claimant appears with his reasons in favor of his claim, and the commissioner of patents is the opposing party, who, in effect, represents the public, as an alleged infringer does in an action for an infringement, after a patent is granted. This mode of proceeding puts the claim in as good a position as it can be placed in for a trial, in this stage of the invention, since the commissioner of patents is incited to make as strong an opposition as he can, in vindication of his rejection of the claim. But still, I cannot but think that the objections to such a system, entirely outweigh the reasons in its favor.

The case is not wholly similar as to the specification, since it can as well be settled at first as afterwards, whether it is intelligible and clear. The public is interested in having the specification full and clear, and the claim of the patentee precisely and definitely stated ; and it can as well be decided whether they are so at the moment when the specification is drawn, as at any future period. And the objection to a decision on

these points in the first instance, are, by no means, so weighty, as against a decision on those of the novelty and utility, since the decision, though definitive as against the claimant as to the use of a particular mode of describing his invention and claim, is not conclusive as to the claim itself, and so amounts in effect only to a recommendation of a correction of the specification. This recommendation is definitive, it is true, but then it is definitive upon a point that is not material to the claim itself, since it goes only to the form of presenting it.

These considerations lead to the conclusion, then, that the administrative officer, to whom the issuing of patents is entrusted, should be invested with authority to reject the application in case he deems the claim to be *plainly* immoral, or illegal, or not intelligibly or distinctly specified ; and that the applicant may appeal to a board or tribunal that shall be arbiter between him and the administrative officer ; the decision of which arbitrator must of course be final, if against the applicant, but need not necessarily to be so if in his favor, there being no necessity to bind every member of the community, on a question in which many may be personally and individually interested, and perhaps deeply so, by a decision to which they cannot be personally parties. I cannot but think it is very difficult, if not absolutely impracticable, on ex-

periment, to carry preliminary adjudications beyond these bounds, and that it would not be of material public importance that they should be carried further, if it were practicable, and attended with no great difficulty.

In case of a defect of the specification, through inadvertence or mistake, the American law has always permitted the patentee to surrender his patent and take out a new one with a corrected specification. The British law does not provide specifically for this, but the act of parliament of 1835, makes an equivalent provision by permitting the patentee, or his assignee, at any time, to make an alteration of his specification, or disclaim any part of it.

The act of congress just referred to, also provides that in case of a specification, partly good and partly defective, and the failure of an action for an infringement in consequence of the defect, where the patentee is entitled to a part of what he claims in his specification, and has well described, the court may, in taxing costs, have regard to the fact that the patentee is entitled to a patent and has well described what would be a good subject of a patent. But it does not appear why the law should not go further and allow him to recover for damages in such case for the infringement of what is well described. Such a provision would very materially relieve patentees from the em-

barrassment under which they labor in vindicating their privileges under their patents. A number of the persons examined before the committee of the house of commons, in 1829, were decidedly of this opinion.²⁴

In reviewing the general grounds of legislation upon patents, the next subject that naturally presents itself is the fee, or tax, to be paid by the applicant for the guaranty of his exclusive privilege, upon which I purpose to reserve any remarks that may occur for the place where that subject is particularly considered in the course of this treatise, when the doctrine will be maintained that the fee ought, at the outside, not to be greater than may be sufficient to defray the expenses of administering the law, if it ought to exceed half of that amount. If this proposition be correct, the laws of most countries, at least, which have legislated upon this subject, excepting the United States, are, in this respect, based upon a wrong principle, for most of them, at least, and especially those of Great Britain and France, not only demand from patentees a reimbursement, but also extort a payment as the price of his monopoly. On this subject the persons examined before the committee of the house of commons, in 1829, disagreed ; most, though not all of them, being

²⁴ Rep. p. 8. 15. 37. 39. 77.

of opinion that a considerable amount should be exacted for the particular purpose of discouraging patents for trivial subjects ;²⁵ though some of them stated that the very large amount exacted in England had not that effect, and in the United States no complaint is made of any material inconvenience consequent upon the smallness of the fee.

An evil exists in both England and the United States, which it might be thought would be checked by enhancing the expense of taking out patents. I allude to the patent-jobbers, a sort of poachers upon the ground of patentees. In England this class makes use of the caveat in prosecuting its fraudulent pursuits. The practice there is to enter a caveat for the purpose of getting notice of the inventions and applications for patents that are on foot, and either extorting money from the patentee, as a compromise for withdrawing opposition to his patent, or taking out a patent for the same thing before the real inventor can obtain his. To do this the piratical applicant gets a longer time allowed him within which to enrol his specification, so that as soon as the real inventor has enrolled his specification, the patent-jobber pirates the invention into his own,

²⁵ Rep. pp. 13.14. 15.17. 37. 38. 40. 46. 47. 48. 50. 52. 71. 72. 73. 77. 84. 87. 101. 105.

under his prior patent, and shuts out the real inventor from his own invention. It is remarkable that such swindling should not be within reach of the laws of a country in which the legislation is so far advanced as in England. It is very possible that the large tax levied upon patents in England may diminish the number of instances of this species of swindling. But admitting this to be the effect, it is not a sufficient ground for imposing the tax.

There is also a class of patent-jobbers in the United States, but they carry on their trade in a very different manner, since the practice of specifying before obtaining the patent does not give opportunity for the same kind of piracy to which the English practice opens the door. In the United States they have heretofore gone to the patent office and copied from different drawings, models, and specifications, relating to the same subject, such parts as would, when put together, make a plausible specification, upon which they took out a patent ; and then sold out rights or shares, or gave licenses ; and so made a business of selling patent after patent.

This class of persons, both in England and the United States, ought to be dealt with by indictment under the criminal law, since the practices in each country are plain swindling, and if the law is not sufficient to

reach and punish this practice, new laws ought to be enacted for this purpose.

One object of the act of July 4th, 1836, was to suppress the trade of the patent-jobbers by conferring on the commissioner of patents, and in effect enjoining upon him, a stricter exercise of discretion in granting patents than had been used by the secretary of state.

All the patent laws provide for the assignment of patents, and this is a material provision of such laws, since a patent is often of but little value without the right of assignment. The right itself would, however, exist without any special enactment on the subject, the object of the enactments being to regulate its exercise.

The British practice, and under the act of congress of 1836, the American law, allow of the filing of caveats, whereby the person filing the caveat is entitled to notice of any application for a patent on the subject named, which, if it interferes with his own, he may thus have an opportunity of opposing. The Spanish law of patents, passed in 1820, under the constitutional government, had a provision for caveats, which is not copied into that of 1826.

The particular proceedings for taking out patents in the United States will be hereafter described. It is not necessary to dwell upon those of other countries. Much of the examination by the committee of the

British House of Commons in 1829 was taken up with this subject, which it is not of practical importance to American patentees to refer to particularly.

Another material consideration, in legislating upon patents, relates to the period for which they shall be taken. The French and Belgian laws allow of patents for different periods of five, ten, or fifteen years, apportioning the tax to the time. The Austrian law, also, accommodates the tax to the period during which the patentee uses his invention and avails himself of his privilege, not exceeding fifteen years, and, after the first five years, very judiciously renders the payments annual, increasing from year to year, so that the patentee pays the tax for his privilege as he may be supposed to acquire the means from time to time, from the profits of his invention. The smallness of the fee in the United States, which is not a tax, renders any such apportionment of it over the period of the existence of the exclusive privilege, unnecessary. In the examinations by the committee of the British commons above mentioned, a number of the persons examined were of opinion that patents should be allowed for different periods, on the ground that some inventions could not be brought into profitable use, so as to remunerate the inventors, within the period of fourteen years allowed by the British law, while other inventions,

depending on fashion, or relating to things of transitory interest, become obsolete long before the expiration of that period.²⁶ As far as the latter consideration is of weight, it applies merely to the amount of the tax, and it is not applicable in the United States, where the amount exacted of patentees is intended merely for the purpose of indemnifying the public for the expenses of administering the patent laws.

There are many cases, no doubt, of important inventions, which, like that of Mr. Watt,²⁷ do not remunerate the inventor for his time and outlay within the common period of fourteen years allowed by the British and American laws for the exclusive privilege. This period is, however, probably of sufficient length for the majority of cases, and the laws of England now authorize the king, and those of the United States authorize a board, consisting of the secretary of state, the commissioner of patents, and the solicitor of the treasury, to extend the term of the patent not exceeding seven years, in case of its appearing that the patentee has not been indemnified for his expenses and rewarded for his ingenuity and the benefit he has conferred on the public.

²⁶ Rep. pp. 10. 27. 32. 33. 39. 47. 74. 84. 91. 92. 105.

²⁷ *Supra* p. 18.

Such is a general outline of the provisions of the patent laws of this and other countries. Each of these provisions, as far as they have been introduced into the laws of the United States, will be considered in the following chapters.

CHAPTER V.

Character and Spirit of the Jurisprudence upon Patent Rights.

THE jurisprudence on patents has been said to constitute the metaphysics of the law. The difficulty of administering and giving a construction to this branch of law, lies, says Mr. Justice Story, "not so much in the general principles, as in the minute and subtle distinctions which occasionally arise in the application of these principles."¹ For instance, the subject of a patent must be new, and useful, and clearly described, for so the law requires. There is not the least difficulty respecting these general doctrines; but when we come to inquire what is new, that is, whether the thing is so similar to, or dis-

¹ 1 Mason R. 472.

verse from, what has already been done or produced, as to be substantially the same, or different, the question is often of a subtle metaphysical character. The same remark is applicable to the question whether a thing is useful, and a decision on the other of these questions, relating to the sufficiency of the specification, involves a nice analysis of the invention and the description of it by the patentee. It follows, from this character of the jurisprudence on this branch of law, that the beneficial effect of the law depends quite as much upon the principles and spirit with which it is interpreted and administered, as upon the general provisions of the law itself, since it is to no purpose to provide for a temporary monopoly of a thing on condition that it shall be described with greater clearness and precision than the nature of the case admits of, or than can be attained by the skill of those whom the inventor must employ.²

If, therefore, the doctrine laid down by Lord Ken-

² Mr. Arthur Aiken, Secretary to the Society for Encouragement of Arts, in his testimony before the Committee of the House of Commons on this subject, in 1829, remarks that the cases turn upon points of law, because neither the judges nor jury understand the matter practically; and Mr. Newton says the merits rarely come in question. Mr. Farey, another witness, says, the judges are astute in observing flaws. Westm. Rev. No. 44, p. 247. Foster's Am. Ed.

yon is to be adopted, the beneficial effect of the law as a reward to inventors, will be defeated. He says, "I confess I am not one of those who greatly favor patents; for though, in many instances, the public are benefited by them, yet on striking the balance upon this subject, I think great oppression is practised on inferior mechanics, by those who are more opulent."³ This is stepping aside a little from the judicial, and assuming the legislative functions, for the favor to be extended to patents is properly a matter to be determined by the law, not by the discretion of the judge, or his opinion as to the effect of the law on inferior mechanics. The operation of the patent law of England to the prejudice of small mechanics, if it in fact exist, is owing, in part, to the very strictness and illiberality of construction, which Lord Kenyon professes to favor, since it tends to render the validity of patents so precarious, that only men of ample fortune can afford to run the hazard of speculating in this species of property; especially since the practice mentioned by Lord Brougham has prevailed, who states that it not unfrequently happens that those who are interested in quashing a patent make up a stock purse, to defray,

³ 8. T. R. 98. See also opinion of Dallas J. in *Hill v. Thompson*, 2 J. B. Moore, 458.

at the common charge, the expenses of defending those who infringe it, against suits by the patentee, who is liable thus to be ruined by the expense of law suits, even though his patent may be adjudged to be valid.⁴ The enormous tax and charges upon patentees in England, have had the same tendency. These two causes have gone far towards defeating the objects of the exception of inventions from the prohibition put upon monopolies in general, by the statute of James I.⁵ Lord Chief Justice Abbot, since Lord Tenterden, admits that the patents have been too illiberally construed.⁶ And in more recent cases the principles and spirit of the English jurisprudence on this subject, have been much ameliorated and made more conformable to the motives and policy of the patent laws. In a more recent trial, before Mr. Justice Patteson, reported by Mr. Godson, the instructions to the jury breathe the true spirit of the law.⁷

⁴ Speech in the House of Lords, June, 1835. Some of the persons examined by the Committee of the House of Commons in 1829, speak of it as a common thing to make up such a stock purse.

⁵ See evidence taken before the Committee of the House of Commons, 1832, Westminster Review, No. 44, April, 1835, on this subject.

⁶ 2 B. & Ald. 345.

⁷ In the examinations before the Committee of the House of Commons, in 1829, it is admitted that the English courts recently

In the United States the jurisprudence on this branch of law has in general been marked by more broad and liberal views. Its leading principles cannot be better expressed than in the language used by Mr. Justice Story, in the case of Ames's paper-making machine. He says, "Patents for inventions are not to be treated as mere monopolies, odious in the eyes of the law, and therefore not to be favored, but on the contrary to be construed with the utmost rigor as *strictissimi juris*. The Constitution of the United States, in giving authority to Congress to grant such patents for a limited period, declares the object to be to promote the progress of science and the useful arts, an object as truly national and meritorious, and well founded in public policy, as any that can possibly be the object of national protection. Hence it has always been the course of the American courts (as it has latterly been that of the English courts also) to construe these patents fairly and liberally, and not to subject them to any over-nice and critical refinements. The object is to ascertain what, from the fair scope of the words, is the nature and extent of the invention claimed by the party, and when the nature and extent of the claim is apparent,

gave a more liberal construction to the patent laws, in favor of patentees. Rep. p. 77. 96.

not to fritter away his rights upon formal and subtle objections of a purely technical character.’⁸

The writer in the *Westminster Review*, already quoted, goes into an argument and cites examples, to prove that the illiberal and captious jurisprudence on this branch of law, is owing to the incompetency of the judges to understand the merits of the cases, and a consequent inclination to put the decision upon legal technical points, with which they were more conversant.⁹ He does not proceed to the proposal of any remedy, and accordingly the argument and citations stand as merely a charge of incompetence or want of fidelity on the part of the judges; and of these the reader is left to infer the former; the latter being indeed totally destitute of pretence, for no one at all acquainted with the history of English jurisprudence for a long series of years, will for a moment think of drawing in question the general integrity and laborious fidelity of the English judges, for in these respects those of no country stand above them. Still on this subject it is admitted that at least very many of them have fallen into a narrow and inadequate system of jurisprudence. The fair inference, however, is not, as the writer seems to insinuate, that juricon-

⁸ *Ames v. Howard*, C. C. U. S. Mass. Oct. 1833.

⁹ *Westm. Rev.* No. 44. April, 1835. p. 251, 252, *Foster's Am. Ed.*

sults by profession are not suitable judges in cases of patents. The same objections would lie against professed jurisconsults as advocates, yet no patentee, having a controversy on the subject of his patent, doubts being able to find an advocate capable of understanding his invention. The judges are not less likely to be able to understand the principles of an invention than an advocate. It would evidently be quite impracticable to procure judges or even jurymen, who have actually worked at or practised all the innumerable trades and professions by which civilized society is diversified, nor would it be desirable were it practicable. It is then quite nugatory to object that judges have not practical experience in any trade to which any particular patent relates. It is enough that they understand the law of patents. Were tradesmen to be appointed judges, any one would understand but one trade, when the cases arising on patents relate to a thousand; and then the still stronger objection would be, that he would not understand the law of that particular trade. The only remedy for the inconvenience mentioned, if it indeed be one, would be the selecting of special juries. This is the conclusion to which the remarks of the writer just referred to, would tend, though he does not state it specifically

The competency and qualifications of the court and

jury, as constituted in England, for the trial of patent causes, is much discussed in the examinations before the committee of the House of Commons in England in 1829, and various suggestions for improvement were made by some of the persons examined, while others objected to the courts as tribunals but would not venture to suggest improvements, and others, again, were well satisfied with the ordinary tribunals. But the views expressed by these persons, as well as the remarks of the writer quoted above, go, at the most, to the appointment of special juries, and the reasons for this are quite as strong in cases arising on questions of commercial law as in those on patents.¹⁰

¹⁰ See Rep. p. 4. 72. 89. 91. 101. 102.

CHAPTER VI.

What Persons are entitled to Patents, and capable of taking them out.

- Sec. 1. *Mere Introducers of an Art or Machine.*
2. *Joint Patentees.*
3. *Sole Patentee.*
4. *Divers Independent Inventors of the same thing.*
5. *Assignee by Assignment anterior to the Patent.*
6. *Personal Representatives of the Inventor.*
7. *Aliens.*

SEC. 1.—MERE INTRODUCER OF AN ART OR MACHINE.

WE are next to inquire what party is entitled to a patent for any particular invention, and what persons in general are permitted to take out Patents. And in the first place the patentee must be the inventor. Mr. Godson remarks, that “the character of an inventor may be obtained by a person in three ways, by bringing with him and publishing to his countrymen the productions of the genius of foreigners; by pub-

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lishing what others as well as himself have found out at home ; or by publishing what he himself has discovered.”¹ He does not mean that the publisher of another’s invention is entitled to a patent for it, but that among several who simultaneously discover the same thing, the first who applies for a patent, and publishes it, is entitled to the monopoly. Two descriptions of persons then are entitled to patents, namely, the inventors of a thing, and the introducers of what others have invented abroad, but which was before unknown in England. The doctrine of the English jurisprudence as to the right of importers of an art or machine, has, as we have seen, been incorporated into the laws of France, Spain, the Netherlands, and Austria.

The law of the United States limits the right to take out a patent, to the *original inventor* ; it does not give the privilege to a person who merely introduces a foreign invention. The statute of 1793 gave the privilege to the *inventor*, and required that he should make oath that he verily believed that he was the “ *true inventor*,” which words have been construed not to be applicable to the importer of another’s discovery ; though the expressions do not exclude

¹ Ch. 2. p. 59.

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such a claimant in any stronger terms than the English statute of 2 James I., the fifth section of which excepts from the general prohibition of monopolies, those theretofore granted of the "sole working or making of any manner of new manufacture within this realm, to the first and true inventor or inventors." And the sixth section, which provides for the future grant of monopolies, is in precisely the same words in this respect. As it had been customary, before the passage of that act, to grant patents to the first introducers of foreign inventions into England, who were accordingly placed upon the same footing as inventors in respect to this privilege, when the statute made an exception of patents for inventions from the general suppression of monopolies, it was very naturally construed to except inventions introduced from abroad as well as others, and the words of the sixth section, describing the persons entitled to future grants of patents, being the same as those of the fifth section in relation to the then existing patents, the same construction was given to them. This construction has never been given to the American law. It has always been an essential qualification for the claimant for a patent in the United States that he should be the *true inventor*.

SEC. II.—JOINT PATENTEES.

A joint patent cannot be sustained upon a sole invention of either of the patentees, for the patent act gives no right to a patent except to the inventor; and requires an oath from the party who claims a patent, that he is the true inventor.² Joint inventors must therefore be joined in the patent.

SEC. III.—SOLE PATENTEE.

If the invention is suggested by another, the person to whom the suggestion is made, though he proceed to reduce it to practice, is not the *inventor* within the meaning of the statute. This proposition might, however, be limited to the case of a suggestion of the specific process or machine. A general theoretical suggestion that a steam vessel might be made to navigate the air or water, or that paper could be made in a continued sheet on a cylinder, would not be such a suggestion of the invention as would preclude the person to whom it should be made, from taking out a patent for a particular process or specific machinery for effecting the result suggested. But if the specific

² 1 Mason, 153. 473.

process is pointed out, the person to whom it is so pointed out, cannot afterwards be the inventor of such process or machine. In an action by a patentee, for an infringement of a patent for a bleaching liquor, a chemist deposed, that previously to the grant of the patent, he had had frequent conversations with the patentee, on the means of improving bleaching liquor, and that in one of them, he had suggested to the patentee, that he would probably obtain his end by keeping the lime water constantly agitated; and it appeared that this was indispensable in the process. Lord Ellenborough thereupon nonsuited the plaintiff, on the ground that it was not his invention.³ So in an action for an infringement of a patent for an improved method of making hats, a witness, who was one of the plaintiff's men, stated that he invented the improvement which was the subject of the patent, while employed in the work-shop of the plaintiff. The plaintiff was thereupon nonsuited.⁴ Mr. Justice Bayley throws out the suggestion that if the witness had been employed by the plaintiff for the express purpose of devising improvements, the construction might have been otherwise.⁵ This was supposing an

³ *Tenant's case*, Dav. Patent Cas. 429.

⁴ Per Holroyd J., *Barber v. Walduck*, cited 1 Car. & P. 558.

⁵ *Bloxam v. Elsee*, 1 Car. and P. 558. 1 R. & M. 187.

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assignment of the invention, for it can make no difference in principle whether the consideration paid for the invention, be a specific price or a salary. This would not, however, make the employer the *inventor*, though the real inventor would thereby lose the property in his invention. And this position is illustrated by another case, in which a head colorman, employed to mix colors for calico printing, had, during his service, kept a book in which were entered the processes for mixing the colors, many of which were of his own invention. Mr. Justice Chambre said, the master has a right to something beside the mere manual labor of the servant in the mixing of the colors; and though the servant invents them, yet they are to be used for his master's benefit, and he cannot carry on his trade without his book.* And it was held accordingly that on discharging the colorman, his employer was entitled to retain the book and use the mixtures. This case does not give the right of taking out a patent to the employer, but it proceeds upon the doctrine that the inventor, being employed for the purpose of compounding these mixtures, and having entered them in the book, thereby lost his property in them as an invention. The case can, however,

* *Makepeace v. Jackson*, 4 Taunt. 770.

hardly be shaped into a general doctrine ; it is a matter of construction of the particular circumstances, whether the inventor, by the nature of his employment, or by his contract, either assigns his invention to his employer, or at least divests himself of his own property in it. It is not only, not always the case ; but, on the contrary, the inventor would most frequently retain his property ; for most persons are employed to practise arts already known, not to invent new ones. We must limit the doctrine strictly to the case put by Mr. Justice Bayley, of the employment of a person for the purpose of superintending and directing the processes, and who uses them without reservation for the benefit of his employer.

SEC. IV.—THE ORIGINAL INVENTOR.

To entitle a party to a patent he must not only be an inventor, but also the *original* inventor ; that is, the first inventor who reduces the invention to practice. Though one exception to this rule is illustrated by the case of Dolland's patent for an improvement in reflecting telescopes, for Doctor Hall had first made the invention and reduced it to practice in his closet, and kept it secret, and yet Dolland's patent for the subsequent invention was held to be valid ; for he was

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the original inventor of the improvement to all practical purposes, as far as the public was concerned.⁷ Mr. Justice Washington is said to have held, in an action for an infringement of a patent, that it was no defence that the plaintiff was not the original projector of the improvement if the patent was taken out with the knowledge and assent of the original projector, and not in fraud of his right.⁸ So the same judge is reported to have intimated, in another case, that where an invention was joint, and it was agreed by two (verbally) to take out a joint patent, and one in violation of this agreement took out the patent in his own name separately, he would be the trustee of the other to the amount of his moiety.⁹ It is not easy to reconcile this doctrine with the language of the statute requiring the patentee to make oath that he is the *true* inventor; and it seems to conflict with the doctrine laid down by Mr. Justice Story.¹⁰ Certainly if the terms *original projector* be used in their ordinary sense, and such projector communicates his project to

⁷ Dav. Pat. Cas. 170. 2 H. Bl. 469.

⁸ Dixon v. Mayor, C. C. of U. S. Penn. April, 1821. Coxe's Dig. 532.

⁹ Reutgen v. Kanowrs & Grant, 1 Wash. C. C. R. 168.

¹⁰ Stearns v. Barrett, 1 Mason, 153; Barrett v. Hall, 1 Mason, 447.

another, this latter cannot be considered the original inventor.

The subject of the originality of the invention and also that of simultaneous inventions by different persons independently of each other, will be considered more particularly in treating of the novelty of inventions. It is sufficient to state generally, here, that where an inventor has applied for a patent, his claim will not be superseded by that of any other unless that other can show a previous invention. It will not be enough for him to show a simultaneous invention.

Sec. V.—ASSIGNEE BY ASSIGNMENT ANTERIOR TO
THE PATENT.

It was ruled by Mr. Justice Washington, in a case for an infringement of a patent, not to be a good defence to prove that another person was the inventor, if it appeared also in evidence that the patent was taken out by the plaintiff with the consent of that other.¹¹ A short abstract of the point as above stated, is the only report of this case, from which it does not

¹¹ *Dixon v. Mayor*, C. C. U. S. Penn. April, 1821. *Coxe's* Dig. 531.

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appear whether the point ruled was one merely of evidence, namely, that the consent of the person in question to the plaintiff's taking out the patent, rebutted the testimony that such other was the inventor; or, that another person might take out a patent in his own name for an invention not exclusively his own, with the consent of the real inventor, which would be equivalent to the patent being taken out by the assignee in case of an assignment before the patent is issued. The latter is the more obvious construction of the report as Mr. Coxe gives the case. And this doctrine is countenanced by an intimation of the same judge in another case.¹² So in another case¹³ it is implied that the patent was taken out by the assignees. But whatever may have been held or intimated or implied to the contrary on this subject, it seems, from the whole language of the act of Congress of 1793, especially the form of the oath, and from the cases already cited,¹⁴ and also from the common form of the patent itself, that it can be taken out only on the application and oath and in the name of the inventor

¹² *Reutgen v. Kanows & Grant*, 1 Wash. C. C. R. 168.

¹³ *Gray & Osgood v. James and others*, 1 Pet. C. C. R. 481, 482.

¹⁴ *Stearns v. Barrett*, 1 Mason, 153; and *Barrett v. Hall*, 1 Mason, 447.

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himself, or the inventors themselves, if more than one, except in the case of the death of an inventor, as hereafter mentioned. The effect of an assignment previously to the grant of the patent, therefore, is that on the patent being issued on the application and oath and in the name of the inventor, and on the recording of the assignment in the office of the secretary of state, the assignee, thereafter, under the fourth section of the act of 1793, and the eleventh of that of 1836, stands in the place of the original inventor.¹⁴

Sec. VI.—HEIRS OR REPRESENTATIVES OF THE PATENTEE.

By the act of April 17th, 1800, it was provided that in case of the decease of the inventor before taking out a patent, his personal representatives may take it out; the oath being “so varied as to be applicable to them.” The act of July 3d, 1836, s. 10, adopts this provision.

¹⁴ I understand that it has been the practice at the patent office, heretofore, to grant patents directly to the persons to whom the inventions have been previously assigned, but I do not see that the law authorizes this practice.

Sec. VII.—ALIENS.

The act of Congress of 1790, c. 34, s. 1, provided, that upon the "petition of any person," a patent might be granted. By that of 1793, c. 55, s. 1, a patent might be granted to "any person or persons being a citizen or citizens of the United States." The act of April 17, 1800, c. 25, s. 1, extended the privilege to "all aliens who at the time of petitioning should have resided for two years within the United States." The act of July 3, 1836, c. 357, s. 6, extends the privilege again to "any person or persons," as well aliens as citizens, making, s. 9, a distinction between the fee to be paid by a citizen, or an alien who has resided in the United States one year, and that to be paid by an alien who has not resided in the United States that time.

CHAPTER VII.

Subjects of Patents.

- Sec. 1. *Kinds of Subjects Patentable.*
2. *Manufacture.*
 3. *Method.*
 4. *Process.*
 5. *Principle.*
 6. *Application of a Principle.*
 7. *Effect, Result, Product.*
 8. *Art, Scientific Theory, Abstract Proposition,
Reduction to Practice.*
 9. *Materials, Substances, Compositions of Matter.*
 10. *Combination.*
 11. *Improvement.*
 12. *Change of Form, Proportions or Materials.
Insufficiency of the Invention. Ornaments.*
 13. *Legality.*
 14. *Usefulness.*
 15. *Vendibility.*
 16. *Novelty, Priority.*
 17. *Previous Publication.*
 18. *Imported Inventions.*
 19. *Delay for Experiments. Dedication to the
Public.*

Sec. I.—KINDS OF SUBJECTS PATENTABLE.

WE now resume a very difficult branch of the law of patents, the inquiry being as to what *kinds* of

new inventions are patentable. Nothing is patentable but an *invention*; but not every invention is so. After the adoption of the French patent law, patents were taken out for systems of finance;¹ but these were declared not to be within the class of inventions comprehended under the law. To decide this question, our first resort is to the words of the law; or in the British statute, the *word*; for the kinds of subjects intended by that law, are expressed by the single word *manufacture*; and, as we shall see, the meaning and extent of this word, in reference to the subject in hand, is restricted, in the first place, by express provisions in the law, and then again by construction, and yet a very extensive signification is given to it. The acts of Congress of 1793, and its substitute, that of 1836, give a more full and definite description of patentable subjects; the words are, “any new and useful *art, machine, manufacture, or composition of matter*.” The laws are intended to express more fully and precisely, the practical construction which had already been given to the fifth and sixth sections of the British act of monopolies, and are thus, at the same time, the law of the United States, and an exposition of that of England. The language of the French law is,

¹ Renouard.

perhaps, broader than either that of the English or American law, the expression in that law being, "every invention or discovery in any kind of industry;" which, taken in its full extent, comprehends things not embraced by the language of either the English or American law, taken in its widest construction, though the words of these laws, taken in their broadest signification, include subjects which cannot be brought within the French law; or, at least, this is the case with the American law, for the words *art* and *machine*, may be applied to things not included under discoveries or inventions in industry. The truth is, that the practical construction, given to the three laws, in regard to the kinds of invention that are patentable, is substantially the same. The description of patentable subjects in the law of the Netherlands,² is "an invention or essential improvement in any branch of arts or manufactures;" in the Austrian law,³ "new discoveries, inventions, and improvements in every branch of industry;" and in the Spanish law,⁴ "any machine, apparatus, instrument or a mechanical or chemical process or operation, which shall be wholly or in part new."

² Law of January 25th, 1817. a. 2.

³ Imperial Decree of Dec. 8th, 1820. c. 1. s. 1.

⁴ Royal Decree of March 27, 1826. a. 1.

If we take all these expressions in connexion, we shall obtain a pretty accurate, general notion of the kinds of subjects intended by each of these laws, for the subject of the patent must, in the language of the French law, be an invention or discovery in industry; but under the construction given to that law, not *every* invention or discovery in industry is patentable; then the word *manufacture* points out the species of discovery or invention intended to be protected; but lest this word, though by a liberal construction it is applicable to all the proper and all the intended objects of encouragement by the law, should receive too narrow an interpretation, the act of Congress adds, what in fact amounts to a liberal construction of the word *manufacture*, by expressly extending the act to any art, machine, or composition of matter. But it will be evident that we must accept the expressions *art*, and *composition of matter*, in this case, with large restrictions, since the word *art* is applied to mere skill, and yet it will appear very obviously that any discovery in the mode of managing the hands or limbs, or the instrument used, such as is comprehended under the expressions skill, or address, as in horsemanship, in steering a ship, or playing on a musical instrument, cannot be made the subject of monopoly, and if it could be, that any such monopoly

would be most pernicious. We must then resort to *manufacture*, used in the English law, and our own, to limit the construction to be put upon the other expressions used in our law.

In examining more particularly the kinds of subjects covered by the law of patents, it is difficult to distinguish and arrange them into different classes, under the various expressions which have been used to designate them, since these expressions are all of very various, and not very definite signification; and, besides, the subject has been perplexed, by a loose use of these expressions in the opinions of courts in patent cases, and also by the use of the same expression in different senses. The discussions on this subject in the cases, afford a striking illustration of the remark already cited, that we are occupied with a branch of jurisprudence which may aptly be denominated the metaphysics of the law; since, in the subtile and nice distinctions often requisite, and still oftener attempted than requisite, language fails to supply adequate and precise phraseology, so that we are without the usual help to satisfactory speculation, that is, clear language, intelligible to every one, which proves, in this, as in other cases, a double hindrance, first to clear and discriminating thinking, and second, to the ready and perspicuous communication of thought. As the

different expressions used in describing patentable subjects are very analogous to each other in signification, and are mutually blended and implicated together in their meaning, and in the application made of them in the cases, the most convenient mode of treating of them, at least the most concise, will be to enumerate them all, and examine them successively, without confining ourselves rigidly to that order, to do which, much repetition would be requisite, without rendering the subject any clearer.

The expressions by which patentable subjects have been defined and described, then, are, first, those used in the laws already enumerated, viz. invention, discovery, manufacture, art, machine, composition of matter, and others used in the cases, viz. a method, principle, application of a principle, process, effect, result, product, device, combination.

SEC. II.—MANUFACTURE.

The term most discussed in the English reports, as descriptive of the kind of subjects for which patents may be granted, is the description given in the statute of 21 James I. c. 3. s. 5 and 6, and also one of the descriptions in the act of Congress of 1836, namely, *manufacture*. The subject was much discussed in the

cases arising on Watt's patent for an improvement in the steam-engine. In one of these cases, Lord Chief Justice Eyre thus explains this term. He says that the exposition of the Statute of 21 James I. c. 3, as far as usage will expound it, has gone very much beyond the letter. In 2 Salkeld, 447, the words "*new devices*" are substituted and used as synonymous with the words "*new manufacture*." It was admitted in the argument at the bar, that the word "*manufacture*," in the statute, was of extensive signification, that it applied not only to things made, but to the *practice of making*, to principles carried into practice in a new manner, to new results of principles carried into practice. Let us pursue this admission. Under *things made*, we may class, in the first place, new impositions of things, such as manufactures in the most ordinary sense of the word; secondly, all mechanical inventions, whether made to produce old or new effects; for a new piece of mechanism is certainly a thing made. Under the *practice of making*, we may class all new artificial manners of operating with the hand, or with instruments in common use, *new processes* in any art, producing effects useful to the public.*

* Boulton v. Bull, 2. H. Bl. 481.

In the same case, Mr. Justice Heath gives the following exposition of this term : " What are *new manufactures* within the scope of the proviso of the statute 21 Jac. 1? Such as are reducible to two classes. The first class includes machinery, the second, substances (such as medicines) formed by chemical and other processes, where the vendible substance is the thing produced, and that which operates preserves no permanent form. In the first class, the machine, and in the second, the substance produced, is the subject of the patent. I approve of the term *manufacture*; in the statute, because it precludes all nice refinements; it gives us to understand the reason of the proviso, that it was introduced for the benefit of trade."⁶

Lord Kenyon, in one of the same class of cases, defines the word according to its etymology; considering it to be something made by the hands of man.⁷

In a subsequent case we find the same term thus explained by Lord Chief Justice Abbott: " The word 'manufacture,' in the statute 21 Jac. 1. c. 3, has been generally understood to denote either a thing made, which is useful for its own sake, and vendible as such;

⁶ Boulton v. Bull, 2. H. Bl. 492.

⁷ Hornblower v. Boulton, 8. T. R. 99.

as a medicine, a stove, a telescope, and many others, or to mean an engine, or instrument, or some part of an engine or instrument, to be employed either in the making of some previously known article, or in some other useful purpose, as a stocking-frame, or a steam engine for raising water from mines. Or it may *perhaps extend* also to a new process to be carried on by known implements, or elements, acting upon known substances, and ultimately producing some other known substance, but producing it in a cheaper, or more expeditious manner, or of a better and more useful kind.”⁸

Lord Ellenborough gives the following description of what is a *manufacture* within the statute. “In every invention through the medium of mechanism, there are some materials which are common, and cannot be supposed to be appropriated in the terms of any patent. There are common elementary materials to work with in machinery; but it is the adaptation of those materials to the execution of any particular purpose, that constitutes the invention; and if the application of them be new; if the combination in its nature be essentially new; if it be productive of a new end, and beneficial to the public, it is that species

⁸ The King v. Wheeler, 2 B. & Ald. 349.

of invention, which, protected by the King's patent, ought to continue to the person the sole right of vending it.”⁹

“The true foundation of all patents,” says Mr. Justice Buller, “must be the *manufacture* itself; and so says the statute 21 Jac. 1 c. 3. And whether the manufacture be with or without principle, produced by accident or by art, is immaterial. Unless this patent can be supported for the *manufacture*, it cannot be supported at all.”¹⁰ So Mr. Justice Story says, “It is of no consequence whether the thing be simple, or complicated; whether it be by accident, or by long, laborious thought, or by an instantaneous flash of mind, that it is first done. The law looks to the fact, and not to the process by which it is accomplished. It gives the first inventor or discoverer of the thing, the exclusive right, and asks nothing as to the mode or extent of the application of his genius to conceive or execute it.”¹¹

The expression in the French law on this subject, is not, as we have seen, precisely equivalent to that of the English statute, or rather, the terms are not those of which the word *manufacture* would be a literal

⁹ Huddart v. Grimshaw, Dav. Pat. Cas. 278.

¹⁰ Boulton v. Bull, 2 H. Bl. 486.

¹¹ Earle v. Sawyer, 4 Mason, 6.

translation, and yet the construction put upon their law is very similar. Accordingly, M. Renouard's description of patentable subjects will answer very well as an exposition of the sixth section of the British act of 21 James I. or the acts of Congress of 1793 and 1836, on this subject. He says, "It is not every kind of invention and discovery that is the subject of a patent right. It is necessary that the invention or discovery should be of a nature to afford products that may be fabricated by the hands of man, or by the labor which he directs, or which may be subjects of commerce by sale and purchase. If, for instance, a philosopher discovers and makes known a property of heat, before unknown, and yet draws from his discovery no special and positive application to specific fabrications, his discovery is merely scientific, and not patentable. But if, on the contrary, he avails himself of the scientific principles, for the production or combination of a new substance, for the formation of an instrument or machine, if he employs it to obtain a result that is new and of a vendible description, whatever it may be, he may take out a valid patent."¹²

¹² Renouard, c. 5. s. 1. p. 165, 166.

Sec. III.—METHOD.

Having given a definition of the word manufacture by the use of the other expressions, already enumerated, the judges and the writers proceed to analyze those other expressions, and make the necessary distinctions, qualifications, and exceptions. The words *method* and *process* are often used in these definitions of manufactures, and also in giving titles to patents, as a *new method* of effecting such or such an object, or a new *process*. Mr. Godson¹³ thinks a method or process is not patentable, but the reason of his being of this opinion, is, that he puts a peculiar meaning upon the terms. He says, "When an invention is not of a thing made, it can only be known by being taught by the inventor himself, or by being learnt from *experiments* made on the faith of the description given of it in the specification. With that assistance, however well the method or process may be set forth, some time and experience must necessarily be required, before a person can make use of the invention so beneficially as the discoverer. But the public are not bound to make experiments, and, therefore, it

¹³ Patents, p. 85.

seems reasonable to infer that a mere process or method cannot be the subject of a patent."

"But supposing it possible that a new method of operating with the hand, or a new process to be carried on by known implements or elements, might be so described as to be, by bare inspection, made as beneficial to the public as to the discoverer; that neither time nor labor, skill nor experience, are required to put it in practice; still it is not a substance or thing made by the hands of man; it is not vendible; which is an inherent, primary quality of a new manufacture."

"The advantages of a method or process, in truth, arise from the skill with which it is performed. Suppose, for instance, that one person can with a certain machine, produce a particular article of dress, of a certain quality; and another, with the same machine, by using it in a different manner, can make the same article in half the time, and reduce it to half the price; however new and ingenious this method may be, still it is nothing substantial or corporeal. But suppose that in thus using the machine, some *apparently* inconsiderable alteration is made, that would be sufficient to support a patent; and it is indeed difficult to imagine, that any beneficial effect could be produced without some *material alteration* in the

instrument itself; and then why not oblige the inventor to take out a patent for the improvement? It is expressly enacted in the statute of 21 James I. that the new manufacture must not be "hurtful to trade, nor generally inconvenient." To monopolize such methods as above enumerated, appears to be particularly hurtful to trade. In every branch of it there are workmen who use the machines employed in their respective trades more skilfully than their fellows. This superior skill may be in consequence of a particular method of applying their implements. But it would be carrying the doctrine to a great length, to decide that the workmen are entitled to patents for their respective methods of working."

"And further, every master is bound to teach his *apprentice* the best way, or means within his knowledge of following his trade. If, therefore, a master obtained a patent for fourteen years, for a particular *method of operating with known instruments*, to produce a known article in less time than usual, or of making it better and more useful, such apprentice would not be allowed to exercise his hands in the most skilful manner he was able, until several years after he had commenced business for himself. Such a patent would, indeed, be "generally inconvenient." There would be a monopoly in every handicraft

trade; one person only in each calling would be allowed to work in the most skilful manner."

"For these reasons—that Dr. Hartley's case [an invention of iron roof-coverings,] is the only one in support of the doctrine, and he did not first make iron, nor first discover the effect of iron on fire, so that he was not the inventor of any substance or *instrument*—that a method does not possess the qualities which have been shown to be inherent in the *subjects* of patents, and can be known only by making experiments, and that it is inconvenient to the public, particularly to masters and apprentices; that methods should not be monopolized; it might perhaps be fairly inferred, that a method or process is not a new manufacture, within the meaning of the statute of monopolies."

Mr. Godson is undoubtedly right in his doctrine that methods and processes, in the sense adopted by him, are not patentable; but it will appear in the sequel very satisfactorily, that in other senses they are so; and it would be very singular, if they were not so, that the very word *method* should be so often used in the title of inventions; and Mr. Godson himself recommends the use of this term;¹⁴ and yet, as

¹⁴ Patents, p. 88.

we shall see, under the English statute, the title must truly describe the invention, or the patent is void. We can say, then, that a method in general, merely *as such*, is not patentable, or, in other words, that methods are not, universally, and without exception, subjects of patents. And the cases will illustrate what methods are, and what are not patentable.

“This expression, *new manufacture*,” says a writer,¹⁵ “may have either of two significations. A stocking was a new manufacture the first time one was knit; but a stocking was again a new manufacture the first time one was made by a loom. In the first case, the thing made was new; in the other, the art of making that thing in a particular way. Accordingly in these two senses, the reader will find the word *manufacture* set down in Johnson’s dictionary, and Webster’s. This well known, double signification of the word, has, however, often most unaccountably been overlooked. Some judges, in ill accordance with other terms of the act they interpret,¹⁶ have insisted that a new manufacture behoves to be a new salable thing made; and they will not admit a new

¹⁵ Westminster Review, No. 44, April, 1835, p. 247, Foster’s American Edition.

¹⁶ 21 Jac. 1. c. 3.

method to be a new manufacture, except when that method, as in the stocking-loom, happens to be a new piece of mechanism, itself an article of sale ; but when the new method constitutes only a new process, then, however valuable that process may be in manufactures, and however difficult and meritorious to discover, they will not regard it as a manufacture, and consequently not as a proper subject for a patent." In illustration of this remark, the writer refers to the case of Watt's patent, which was endangered by the doubt on the part of the judges, whether he had made what could be considered in law, an improvement "in any manner of *manufacture*."

This doubt arose from Mr. Watt's having used the word *method* in the title of his invention, his patent being for a *method* of lessening the consumption of fuel and steam in the use of steam engines, a doubt being entertained by some of the judges whether a *method* was patentable. The use of this word by Mr. Watt, in his title, endangered the validity of his patent, whereas, had he called it an improvement, the doubt could not have arisen, and yet the sense would have been the same. But it will appear very satisfactorily that a method may be the subject of a patent, the doubt in this respect being, as already suggested,

not whether a method may be patented, but in what sense this term is applicable to patentable subjects.

In one of the cases on Watt's patent, Mr. Justice Heath defines in what sense a method is an invention within the statute, where he describes it to be a principle reduced to practice.¹⁷ So Mr. Justice Buller, in the same case, says that a method must be reduced to practice, in order to support a patent. He says, "the mere application or mode of using a thing was admitted not to be a sufficient ground for a patent ; for on the court putting the question, whether, if a man by science were to devise the means of making a double use of a thing known before, he could have a patent for that ? it was rightly and candidly admitted that he could not. The method and the mode of doing a thing are the same ; and I think it impossible to support a patent for a method only, without having carried it into effect and produced some new substance."¹⁸ And Mr. Justice Grose makes the same distinction.¹⁹ And so Mr. Justice Rooke, in one of the same series of cases,²⁰ speaking of Watt's specification, said, as to those parts of the specification which denoted intention only, and

¹⁷ *Boulton v. Bull*, 2 H. Bl. 481.

¹⁸ *Boulton, v. Bull*, 2 H. Bl. 486.

¹⁹ *Hornblower v. Boulton*, 8 T. R. 102.

²⁰ *Boulton v. Bull*, 2 H. Bl. 479.

did not state the thing to which it was to be applied, he did not think the patentee could maintain an action for a breach of them. That is, whether the question relates to an invention, a discovery, a manufacture, method, process, or principle, it must be a thing actually and practically carried into effect. Mr. Justice Eyre very clearly explains the same distinction. In Watt's case a patent was granted for a *new invented method* of lessening the consumption of steam and fuel in steam-engines. *Eyre J. C.* "Shall it now be said, after we have been in the habit of seeing patents granted, in the immense number in which they have been granted for methods of *using old machinery*, to produce substances that were old, but in a more beneficial manner, and also for producing negative qualities by which benefits result to the public, by a narrow construction of the word *manufacture* in the statute, that there can be no patent for *methods* producing this new and salutary effect, connected, and intimately connected, as it is, with the trade and manufactures of the country! This I confess, I am not prepared to say."²¹

The same judge thus further illustrates this subject: He says, "when the effect produced is no substance

²¹ *Boulton v. Bull*, 2. H. Bl. 495.

or composition of things, the patent can only be for the mechanism, if new mechanism is used, or for the process, if it be a new method of operating, with or without old mechanism, by which the effect is produced. To illustrate this. The effect produced by Mr. David Hartley's invention of a 'method for securing buildings from fire,' is no substance or composition of things; it is a mere negative quality, the absence of fire. This effect is produced by a new method of disposing iron plates in buildings. In the nature of things, the patent could not be for the effect produced. I think it could not be for the making the plates of iron, which when disposed in a particular manner, produced the effect; for those are things in common use. But the invention consisted in the *method of disposing those plates of iron*, so as to produce their effect, and that effect being a useful and meritorious one, the patent seems to have been very properly granted to him for *his method* of securing buildings from fire. In Mr. Hartley's method, plates of iron are the means which he employs; but he did not invent those means, the invention wholly consisted in the new manner of *using*, or I would rather say, *of disposing a thing in common use*, and which thing every man might make at his pleasure. In the nature of things it must be, that in the carrying into

execution any new invention, use must be made of certain means proper for the operation. Manual labor, to a certain degree, must always be employed ; the tools of artists frequently ; often things manufactured, but not newly invented, such as Hartley's iron plates ; all the common utensils used in conducting any process, and so up to the most complicated machinery that the art of man ever devised. Now let the merit of the invention be what it may, it is evident that the patent, in almost all these cases, cannot be granted for the *means* by which it acts, for in them there is nothing new, and in some of them, nothing capable of appropriation. Even where the most complicated machinery is used, if the machinery itself is not newly invented, but only conducted by the skill of the inventor, so as to produce a new effect, the patent cannot be for the machinery. In the list of patents with which I have been furnished, there are several for new methods of manufacturing articles in common use, where the sole merit and the whole effect produced, are the saving of time and expense, and thereby lowering the price of the article, and introducing it into more general use. Now I think these *methods* may be said to be *new manufactures*, in one of the common acceptations of the word, as we speak of the manufactory of glass, or any other thing

of that kind. The patent cannot be for the effect produced, for it is either no substance, at all, or, what is exactly the same thing as to the question upon a patent, no new substance, but an old one produced advantageously for the public. It cannot be for the mechanism, for there is no new mechanism employed. It must then *be for the method*; and I would say, in the very significant words of Lord Mansfield,²² 'it must be *for method detached from all physical existence whatever.*'²³

The same judge proceeds to point out a distinction, which is of great importance, and which serves as a clew to clear up some of the obscurity that hangs over the cases on this subject. He says, "When the object produced is some new substance or composition of things, it should seem that the privilege of the sole working, or making, ought to be for such new substance or composition, without regard to the mechanism or process by which it has been produced, which, though perhaps also new, will be only useful as producing the new substance. Upon this ground Dolland's patent was, perhaps, exceptionable, for that was for a *method* of producing a new object-glass, instead of being for the object-glass produced. If

²² 4 Burr. 2397.

²³ H. Bl. 403.

Dr. James's patent had been for his *method of preparing* his powders, instead of the *powders themselves*, that patent would have been exceptionable upon the same ground."²⁴ There certainly is a plain distinction between an invention of a new composition, as a medicine, and a new process, art, or method, since in the former case, there may be nothing new in the process or mode of proceeding in compounding or manufacturing the substance, in the latter the mode of proceeding to construct the machine or instrument to which the patent relates, may be the only thing invented. Hence, in discussing this subject, judges and writers sometimes having in view one class of these causes, say, that the substance only is the subject of the patent; at other times, having in view the other class of cases, they say that a method may be patentable. Now according to the explanation of Lord Chief Justice Eyre, both these propositions are true to a certain extent, but neither is true to the extent laid down in some of the cases, that is, we cannot say that substances alone are patentable, nor that methods only are so. Accordingly Mr. Grose, in one of the Watt and Boulton cases, says it signified nothing to the inventor or the public, whether the patent be for

²⁴ 2 H. Bl. 492.

the engine made or the method of making it. Indeed, to the purposes of a title to a patent or a specification, judges have considered the words method and engine to be synonymous. "Engine and method mean the same thing," says Mr. Justice Lawrence, "and may be the subject of a patent. Method, properly speaking, is only placing several things and performing several operations, in the most convenient order; but it may signify a contrivance or device, so may an engine; and therefore I think it may answer the word *method*."²⁶ And Abbott C. J. says on the same subject, "When a person applies to the crown for a patent for a new engine or instrument, he may represent himself to be the inventor of a new method of accomplishing that object, which is to be accomplished by his engine or instrument."²⁸ That a method or mode of operating may be the subject of a patent, is plain from this, that when the object of two patents or effect to be produced is substantially the same, they may both be valid, if the modes of attaining the desired effect are essentially different.²⁷ Therefore where judges or writers lay down the general doctrine that a method cannot be the subject of a patent, as

²⁶ *Hornblower v. Boulton*, 8 T. R. 106.

²⁸ *King v. Wheeler*, 2 B. & Ald. 350.

²⁷ *Huddart v. Grimshaw*. *Dev. Pat. Cas.* 290.

Mr. Justice Heath does in the above case of *Boulton v. Bull*,²⁸ the proposition is true in such a restricted sense as on the whole to render it erroneous.

Sec. IV.—PROCESS.

The word *process* has been suggested instead of method, as descriptive of the subject of a patent, and what has been said of *method* is, in many cases, applicable to *process*, the difference between the two terms, as applied to this subject, being, that method is of a wider signification. Thus Abbott C. J. says, "The word *manufactures*, in the statute Jac. 1. c. 3, may, *perhaps*, extend to a *new process*, to be carried on by known implements, acting upon known substances, and ultimately producing some other known substance; but producing it in a cheaper or more expeditious manner, or of a better and more useful kind."²⁹

It is true the Chief Justice speaks with great caution, because he was using a mere illustration, in doing which, he did not choose thus collaterally to express a positive doctrine, upon a question which

²⁸ 2 H. Bl. 483.

²⁹ *King v. Wheeler*, 2 B. & Ald. 349.

might be a subject of much subtile discussion, but he distinctly implies his own opinion. He seems, however, to have been over-cautious, for if a method may be patentable, of which it is apprehended there can be no doubt, then, of consequence, a *process*, which in this application of the term is, in many respects, synonymous with method, may be so also; *may* be so, for in respect to this latter, we must speak with the same qualifications, and subject to the same exceptions, as when we use the term *method*, as descriptive of the subjects of patents.

Sec. V.—PRINCIPLE.

The question whether a *principle* is a subject of monopoly under the patent laws, was much discussed in the cases relating to Watt's specification of his improvement in the steam-engine. In that specification, the patentee stated that his invention "consisted in the following *principles*," and then proceeded to describe particularly the construction of the engine according to his improvement. This gave occasion to numerous, elaborate, and subtile discussions on the patentable character of a *principle*. And Watt described his invention as consisting of the "following particulars," all this disquisition would have been lost,

and yet this would have been substantially equivalent to the phraseology he did use, for after stating that his invention consisted of *principles*, he proceeded to define and explain what he meant by that expression, and it was not objected that his description was at all defective.²⁰ The real question then was, whether Mr. Watt had used the word *principle* in a wrong sense, and, if so, whether his patent was defeated for this philological inaccuracy, which to all practical purposes was not of the slightest importance, since any person could understand the construction of his machine, and any mechanic could construct another after his description, as well as if he had committed no such inaccuracy. And the strife was a very doubtful one, and the patent would have been lost, had not the judges, on the final decision of the cause, been very strongly disposed to maintain it on account of the great merit and utility of the invention. We will proceed to a review of those discussions, which are useful in throwing light on the question, what are pa-

²⁰ But Mr. John Farey in his statement before the Committee of the House of Commons in 1829. Rep. p. 32, says the description in Watt's specification was allowed by the courts to be sufficient upon very insufficient evidence; and that it was not so in fact, and that a knowledge of his mode of constructing engines came out incidentally thirty years after the date of his patent, and not by means of the specification.

tentable subjects, though the case which gave rise to this term does not, in this respect, seem to have been one of any well-grounded doubt.

"It is a clear position of law," says Mr. Justice Heath, "that the organization of a machine may be the subject of a patent, *but principles cannot*. Indeed it seems impossible to specify a principle, and its application to all cases, which furnishes an argument, that it cannot be the subject of a patent."⁷⁷ "The very statement of what a principle is," says Mr. Justice Buller, "proves it not to be a ground for a patent. It is the first ground and rule for arts and sciences, or in other words, the elements and rudiments of them. A patent must be for some new production from those elements, and not for the elements themselves. If the principle alone be the foundation of this patent, it cannot possibly stand, with that knowledge and discovery which the world were in possession of before. The effect, the power, and the operation of steam, were known long before the date of this patent; all machines which are worked by steam, are worked on the same principle. The principle was known before, and therefore if the principle alone be the foundation of the patent, though

⁷⁷ *Boulton v. Bull*, 2 H. Bl. 482, 483.

the addition may be a great improvement, yet the patent must be void *ab initio*”²⁸ “Undoubtedly,” said Eyre C. J. “there can be no patent for a mere principle.”²⁹ Lord Kenyon said, “the principal objection made to this patent, is that it is a patent for a philosophical principle only, neither organized nor capable of being organized.” If the objection were well founded in fact, it would be decisive; but I do not think that it is so.³⁰ “I am inclined,” said Mr. Justice Grose, “to think that a patent cannot be granted for a mere principle.”³¹ Mr. Justice Lawrence said, “if it were necessary to consider whether or not mere abstract principles are the subject of a patent, I should feel great difficulty in deciding that they are.”³²

Such are the opinions of the judges on the patentable character of *principles*. But what meaning did they attach to the word? Mr. Justice Lawrence says, “a principle may mean a mere elementary truth, but it may also mean constituent parts.”³³ Mr. Justice Rooke thus explains the word. “The term *principle* is equivocal; it may denote either the radi-

²⁸ Boulton v. Bull, 2 H. Bl. 485.

³¹ S. C. Ibid. 104.

²⁹ S. C. Ibid. 495.

³² S. C. Ibid. 105.

³⁰ Hornblower v. Boulton, 8 T. R. 98.

³³ S. C. Ibid. 107.

... ~~radical~~ truths of a science, or those consequences which are founded on radical truths; and which are used as fundamental truths by those who do not find it expedient to have recourse to first principles. The radical principles on which all steam-engines are founded, are the natural properties of steam, its expansiveness and condensibility. Whether the machines are formed in one shape or another, whether the cylinder is kept hot or suffered to cool, whether the steam is condensed in one vessel or another, still the radical principles are the same."²⁴

The signification in which a *principle* is not a subject of a patent is distinctly pointed out by Abbott C. J. He says, "No merely philosophical or abstract principle can answer to the word *manufactures*, Something of a corporeal and substantial nature, something that can be made by man from the matters subjected to his art and skill, or at the least some new mode of employing practically his art and skill, is requisite to satisfy this word."²⁵

Mr. Justice Story remarks, upon the use of this term as descriptive of the subjects of patents, that "In the minds of some men, a *principle* means an

²⁴ Boulton v. Bull. 2 H. Bl. 478.

²⁵ King v. Wheeler, 2 B. & Ald. 350.

elementary truth or power ; so that in the view of such men, all machines, which perform their appropriate functions by motion, in whatever way produced, are alike in principle, since motion is the element employed. No one, however, in the least acquainted with law, would for a moment contend, that a principle in this sense, is the subject of a patent ; and if it were otherwise, it would put an end to all patents for all machines which employed motion, for this has been known as a principle, or elementary power, from the beginning of time. The true legal meaning of the principle of a machine with reference to the patent act, is the peculiar structure or constituent parts of such machine. And in this view the question may be very properly asked, in cases of doubt or complexity, of skilful persons, whether the principles of two machines be the same or different ? Now the principles of two machines may be the same, although the form or proportions may be different. They may substantially employ the same power in the same way, though the external mechanism be apparently different. On the other hand, the principles of two machines may be very different, although their external structure may have great similarity in many respects. It would be exceedingly difficult to contend, that a machine, which raised water by a lever,

was the same in principle with a machine, which raised it by a screw, a pulley, or a wedge, whatever in other respects might be the similarity of the apparatus."³⁶ "By the principles of a machine," says the same judge, in another case, "is meant the *modus operandi*, the peculiar device or manner of producing any given effect. If the same effects are produced by two machines by the same mode of operation, the principles of each are the same. If the same effects are produced, but by combinations of machinery operating substantially in a different manner, the principles are different."³⁷

³⁶ Barrett v. Hall. 1. Mason, 470.

³⁷ Whittemore v. Cutter, 1 Gallison, 478. The writer in the *Westminster Review*, No. 44, April, 1835, says, on this subject, "There is another word, which, in patent causes, is used as a rival word to *manufacture*, but still more ambiguous in its meaning, and which, recommended by such ambiguity, is in very frequent requisition. The word is *principle*. To make this law-fantom, the witchcraft used by the lawyers consists in mingling three different meanings together, used by the aid of certain professional solemnities, producing a mystical word, capable of harlequinizing an idea into many various forms." The writer should have said, the word is *harlequinized*, not any idea; and his own expression seems to be quite as mystical as any thing to be found in the arguments of the lawyers, or the opinions of the judges, whom he probably intends to include in the class of lawyers. The mystery is nothing more or less than the common fallacy in reasoning, of accepting and applying an ambiguous proposition that is true in one sense, and false in another sense, in the erroneous sense. This may be done in respect to *manufacture*, *method*, *process*, or *principle*, since each of them is, in

Mr. Carpmael remarks upon this subject, "It must be evident to every one who has taken the trouble to examine into the question, that the discovery of a principle existing in nature, is not such a discovery as can be protected, or for the use of which an exclusive privilege can be given. I may instance Newton's discovery of the cause and operation of gravitation; it would have been an absurdity to suppose that a patent for applications of the principle of this natural action could have been granted to him."²⁸



Sec. VI.—APPLICATION OF A PRINCIPLE.

Another word often used in connexion with principle, and with other words, in defining the subjects of patent rights, is *application*. The two questions in this case are, first, whether, though a principle in any sense may not be patentable, the *application* of that principle may be so? and second, whether a manufacture, method, or principle in certain senses, being patentable in their character, any new application of

some senses, patentable, in others, not so; and, therefore, whether we say that each of them is or is not patentable, the proposition will be true or false, according to the sense in which the words are used and applied.

²⁸ Law of Patents for Inventions, Ed. 1836. London, p. 14.

such manufacture, method, process or principle, is the substantive subject of a valid patent? In answering the general question, whether a new application of either of these is a proper subject of a patent, we have not only to distinguish whether the thing to be applied may, or cannot be, itself the subject of a patent, but we have the additional uncertainty of meaning and ambiguity in the use of the word *application*. If by *application* be meant the *mode of operating*, or the mechanical combinations, means, or instruments, by which a principle or theory is carried into operation, in this sense, the new application of a theory or principle, may be the subject of a patent. The whole circle of inventions for which patents have been granted, consists of new applications (in this sense of the term) of the mechanical powers and chemical properties of matter. But if by new *application* be meant only the new *use* of a thing, requiring no new apparatus or instrument, and involving no invention whatever, such for instance as using a nail machine for making copper nails, which had been patented, or had before been used only for making iron nails, in this sense a new application cannot be patented.

The proposition may then be laid down that a new application of a theory or principle, or of an art, process, or machine, in itself patentable in its charac-

ter, may be the subject of a patent where such new application is an invention—where it is effected by new means, instruments, or machinery, or new improvements of those already in use.

Thus Mr. Justice Johnson says, “the legal title to a patent consists not in a principle merely, but in an application of a principle, whether previously in existence or not, to some new and useful purpose.”³⁹ He intends the case of an application effected by new apparatus, machinery, or instruments, or processes; such an application as requires invention. In this sense, Mr. Justice Buller says, the new application of the effect of water in changing colors, may be the subject of a new patent, when applied in a new manner, and by new processes, to a species of manufacture to which it had not been before applied. He illustrates this in the case of the invention of water-tabbies, which “owed its rise to the accident of a man’s spitting on a floor cloth, which changed its color; from which he reasoned on the effect of intermixing water with oils or colors, and found out how to make water-tabbies, and had his patent for water-tabbies only. But if he could have had a patent for the principle of intermixing water with oil, or colors, no man could have

³⁹ *Whitney v. Carter, Fessenden’s Pat.* 130.

had a patent for any distinct manufacture, produced on the same principle. Suppose painted floor cloths to be produced on the same principle, yet as the floor cloth and the tabby are distinct substances, calculated for distinct purposes, and were unknown to the world before, a patent for one would be no objection to a patent for another."⁴⁰

So where the shearing of cloth from list to list by means of shears, was known, and the shearing it from end to end by rotary cutters, was also known, it was held that a machine constructed so as to shear from list to list by means of rotary cutters, was such an invention as would entitle its author to a valid patent.⁴¹ This was not a mere use of the rotary cutter for another purpose, but some contrivance and machinery were necessary in order to move the cloth under the cutter transversely, other than that necessary to move it lengthwise, and it was this contrivance or machinery, which was the foundation of the patent.

A known mode of operating or process of manufacture, merely applied to new objects, has never been held to be patentable. Thus the Court of King's Bench held that a new application to the man-

⁴⁰ 2 H. Bl. 488.

⁴¹ *Lewis v. Davis*, 3 Car. & P. 502.

ufacture of one kind of anchors, of a mode of manufacture, before practised in some other kinds, could not be a subject of a valid patent.⁴² They assumed no doubt that this mode of manufacturing an anchor was entirely obvious to any workman who had been conversant with the use of the same mode, in other instances, and, that no material change or contrivance, invention or discovery, was necessary in order to manufacture an anchor in this way—that is, it was substantially the same process. Mr. Justice Heath suggests that it is doubtful whether a new application of a machine is patentable. And he might for the same reason extend the query to the case of a new application of a method or process. He says, “If there may be two different species of patents, the one for an application of a principle to an old machine, and the other for a specific machine, one must be good and the other bad. The patent that admits the most lax interpretation should be bad, and the other alone conformable to the rules and principles of common law, and to the statute on which patents are founded.”⁴³ He implies that a patent for the application of a new principle to an old machine is not a good subject of a

⁴² *Brunton v. Hawkes*, 4. B. & Ald. 540.

⁴³ *Boulton v. Bull*, 2. H. Bl. 481.

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⁴² Brunton

Id. 540.

⁴³ Boulton

Would the patent have been good, applied to all machinery, or to the machines which he had discovered? The patent decides the question. It must be for the vendible matter, and not for the principle. Another objection may be urged against the patent, upon the application of the principle to an old machine, which is, that whatever machinery may be hereafter invented would be an infringement of the patent, if it be founded on the same principle. If this were so, it would reverse the clearest position of law respecting patents for machinery, by which it has been always holden, that the organization of a machine may be the subject of a patent, but principles cannot. If the argument for the patentee were correct, it would follow, that where a patent was obtained for the principle, the organization would be of no consequence. Therefore, the patent for the application of the principle must be as bad as the patent for the principle itself."⁴⁷

Mr. Carpmael illustrates the distinction between a principle and an application of a principle, in the case of Galileo's discovery of the cause of water rising in a pump by the pressure of the atmosphere, when the box is raised, which is a principle of the action of

⁴⁷ *Boulton v. Bull*, 2. H. Bl. 482.

matter and gravitation, and not the subject of a patent, and the application of that discovery by Torricelli in constructing the barometer which was a patentable subject. He instances also the elastic expansive force, and the condensibility of steam as natural and not patentable properties, even on a first discovery, and the application of those properties, first by the Marquis of Worcester, who used the expansive force to raise water, next by Savery, who availed himself of the condensation of steam in his engine patented in 1698, being the first patent on record for a steam-engine, and next by Watt, in whose invention both the expansive force and the condensation are used.

Mr. Justice Washington instructed the jury that the use and application of bells to fire engines to give alarm of fire, so as to be rung by the motion of the carriage, was the subject of a patent. He also considered the application of steam-engines to the purposes of propelling boats to be the subject of a patent.⁴⁸

Sec. VII.—EFFECT. RESULT. PRODUCT.

There is a very close analogy between a new application and a new effect or result of what is already

⁴⁸ Park v. Little and Wood, 3 Wash. C. C. R. 196.

known, as in the instances given by Mr. Justice Buller, of the use of James's fever powder for the cure of a consumption;⁴⁹ this might be called either a new *application* or a new *effect* of the invention. The same remarks that have been made concerning a new application, in this sense of the term, are equally true of a new effect. There is no instance in which it has been held that a mere new effect of the use of a machine already known, without any new combination, machinery, or process, is the subject of a valid patent. The doctrine is laid down by Mr. Justice Story, that "a patent can, in no case, be for an *effect only*, but for an effect produced in a given manner, or by a peculiar operation. For instance, no patent can be obtained for the admeasurement of time, or the expansive operations of steam; but only for a new mode, or new application of machinery, to produce these effects; and therefore, if new effects are produced by an old machine in its unaltered state, I apprehend that no patent can be legally supported; for it is a patent for an effect only."⁵⁰ In this case as in that of a new application, there must be something new in the method, process, combination, or composition, in order to lay the foundation of a patent.

⁴⁹ 2 H. Bl. 487.

⁵⁰ *Whittemore v. Cutter*, 1 Gallison, 478.

SEC. VIII.—ART, SCIENTIFIC THEORY, ABSTRACT PROPOSITION, REDUCTION OF THE INVENTION TO PRACTICE.

A mere scientific theory or abstract proposition, is not patentable. The act of Congress, in describing the subjects of patents, uses the term *art*, which, if taken in its broadest sense, is, like all the others we have been considering, much too comprehensive, but it serves very well to show what is not a proper subject of monopoly, in contrast with *science*. A science is not the subject of a patent, and for the same reason, a mere theory, scientific axiom, or principle, or abstract proposition, or truth is not so.⁶¹ All the abstract philosophical truths that have been discovered, are free from the patent laws, as are the general powers and qualities of matter. The claim of the inventor arises only on the practical application of a theory, or abstract truth, or elementary property, in some art, process or method, which he has invented and put in practice, or some machine or apparatus, or composition of matter, which he has actually made.

A merely intended invention, or improvement, is

⁶¹ *Lowell v. Lewis*, 1 Mason's R. 187.

not patentable. Mr. Watt, in his specification, suggested his intention to add certain improvements to his steam-engine. Mr. Justice Rooke said, "As to the articles of the specification which denote intention only, I do not think that the patentee can maintain an action for the breach of them; for he cannot anticipate the protection, before he is entitled to it by practical accomplishment."⁸²

The subject of a patent must be something that has been reduced to practice; it is not enough that it is merely practicable or possible; it must be something which has been actually done or produced. Mr. Justice Buller remarks, of the cases cited in that of *Boulton v. Bull*,⁸³ "that none of them go the length of proving that the method of doing a thing without the thing being done or actually reduced to practice, is a good foundation for a patent. When the thing is done or produced, then it becomes the subject of a patent." "The thing to be patented," says Mr. Justice Story, "is not a mere elementary principle, or intellectual discovery, but a principle put in practice, and applied to some art, machine, manufacture, or composition of matter."⁸⁴ This is the doctrine of all the cases. It is laid down by Mr. Justice Buller, in

⁸² 2 H. Bl. 479.⁸³ 2 H. Bl. 487.⁸⁴ *Earl v. Sawyer*, 4 Mason, 1.

the cases on Watt's improvement of the steam-engine, "that though an idea or a principle alone would not support a patent, yet that an idea reduced into practice, or a practical application of a principle, is a good foundation for a patent. What is meant by a principle reduced into practice? It can only mean a practice founded on principle, and that practice is the thing done or made, or in other words, the manufacture which is invented." So Mr. Justice Eyre says, in the same case, "For a principle so far embodied and connected with corporeal substances, *as to be in a condition to act, and to produce effects* in any art, trade, mystery, or manual occupation, I think there may be a patent. Now this is the thing for which the patent stated in this case was granted, and this is what the specification describes, though it miscalls it a principle. It is not that the patentee has conceived an abstract notion, that the consumption of steam in fire-engines may be lessened, but he has discovered a *practical manner* of doing it; and for that practical manner of doing it, he has taken his patent. Surely this is a very different thing from taking a patent for a principle; it is not for a principle, but *for a process*."⁵⁵

⁵⁵ Boulton v. Bull, 2 H. Bl. 486, 495.

In a more recent case in England, on an invention of carriage-wheels, by which the load was made to bear upon the top of the circumference of the wheel, instead of the centre, Mr. Justice Paterson said that the patentee was entitled to a patent for the suspension *principle* carried into effect in the particular *way* described by the patentee.”⁵⁶

The patent being for an invention that is described in it, it is not only requisite that the invention should be reduced to practice, but it must be reduced to practice in the way, and produce the effect specified.⁵⁷ In an action brought for an infringement of a patent for “a hammer on an improved construction for the locks of all kinds of fowling-pieces and small arms, the improvement was stated in the specification to consist in letting out the air from the barrel, and causing a communication between the powder in the pan and the powder in the barrel, without, at the same time, letting out the powder, by means of an air-hole in the lock. It appeared, by experiments made in court, that the powder would pass through the hole in the patented lock by its own gravity, without the least

⁵⁶ Jones v. Pearce, Gods. sup. 16.

⁵⁷ Bloxam v. Elsee, 6 Barn. & Cress. 169. See also Turner v. Winter, 1 T. R. 602, 606, 607.

difficulty. The Lord Chief Baron. "It seems to me, that the utility of this invention, and the purpose of this patent, wholly fail ; for the purpose of the hole, as described in the specification, is to let the air pass through, and at the same time secure the powder from passing through ; that of itself would be an answer to this action."⁵⁸

The law is the same, in this respect, in France, as in England and the United States. M. Renouard⁵⁹ says that a mere experiment, without a successful result, is not sufficient ground of a patent ; to entitle a party to which, he must succeed in producing a result or effect.⁶⁰

SEC. IX.—MATERIALS, SUBSTANCES, COMPOSITIONS OF MATTER.

The use of the ordinary known materials cannot be monopolized by patent.⁶¹

And I apprehend that the doctrine may be extended to all materials and substances which naturally exist, whether known or not, for the discovery of a

⁵⁸ *Manton v. Parker*, Dav. Patent Cas. 327.

⁵⁹ p. 282.

⁶⁰ See remarks *supra*, ch. 4. p. 45.

⁶¹ *Per. Buller J. Boulton v. Bull*, 2 H. Bl. 487.

new elementary substance or material, by analysis or otherwise, has never been held to give a right of a monopoly of it. For instance, I do not apprehend that Sir Humphrey Davy was entitled to a patent for the exclusive use of potassium, though he discovered it. If the discovery gave him any right to a patent, it must have been one for the manufacture; that is his art or process of obtaining this metal from the other substances with which it is naturally in combination. It is the art, process or method, if any thing, in such a case, which is patentable, not the substance; so that if any other person had found out a different method of analysis he would have been no less entitled to a patent for his method.

Our statute provides for granting a patent right of a new composition of matter. This expression has reference to medicines, and compositions used in the arts. The same subjects are covered under the English statutes under the general term *manufactures*. In these instances the composition itself is usually considered to be the subject of the patent, and not the mode or process of compounding,⁶⁹ but both the composition and the mode of compounding may be considered to be included in the invention, where the

⁶⁹ 2 H. Bl. 483. 487.

compound is new, since in that case the mode or process of compounding must also be so, though it may consist merely in observing the proportions assumed by the inventor, which being given, the composition may be made in many instances by any person without previous instruction or practice. And in this case it will be immaterial whether the inventor has the monopoly of the compounding or the composition, since the monopoly of either, will, in effect, include both. The expressions, *composition of matter*, are usually applied to mixtures and chemical compositions. It is no objection to a patent for a composition, that all the ingredients were known and in use; it is enough that the compound is new. And this composition may be merely the imitation of some natural composition or mixture; for a new method, by invented processes and apparatus, of producing a composition of matter, which is sometimes, or in some places, to be met with as a natural production, is as much the subject of a patent, as a new machine to produce a known and old effect.

Sec. X.—COMBINATION.

A combination, as the subject of a patent, is analogous to a composition of matter, the former expression being usually applied to mechanical inventions as the latter is to chemical. It is sufficient also, in this case, that the combination is new, though the separate things combined may have been before in use and well known.⁶³ Where a patent is for a *new combination* of existing machinery or machines, and does not claim or specify any improvement or invention, except the *combination*, proof that the machines or any part of their structure existed before, forms no objection to the patent, unless the *combination* has existed before, for the reason that the inventor is limited to the combination.⁶⁴

This is a distinction of great importance in drawing up specifications. In the case of Stanley's cooking stove, Mr. Justice Thompson said that he was entitled to a patent for a combination, but having taken out

⁶³ Bovill v. Moore, Dav. Pat. Cas. 361.

⁶⁴ Per Story J., Moody v. Fiske, 2 Mason, 112; and see also opinion of Abbott C. J., Brunton v. Hawkes, 4 B. and Ald. 541, and of Lord Eldon, Hill v. Thompson, 3 Meriv. 630.

one in which he claimed those parts which have been before known, his patent was void.⁶⁵

Sec. XI.—IMPROVEMENT.

The act of Congress of July 4, 1836, c. 357, s. 6. following that of Feb. 21, 1793, c. 55, s. 1, provides that "any person having discovered or invented any new and useful improvement on any art, machine, manufacture or composition of matter," may apply for a patent. The French, Belgian, Austrian, and Spanish laws, are similar in this respect. They merely adopt the construction which had before been put upon the statute of monopolies by the English courts. Lord Coke mentions an early case against this construction. He says, "If the substance was *in esse* before, and a new addition thereunto, though that addition made the former more profitable, yet it is not a new manufacture in law; and so it was resolved in the Exchequer Chamber, Pasch. 15 Eliz. in Bircot's case, for a privilege concerning the preparing and melting, &c. of lead ore; for there it was said, that that was to put

⁶⁵ Stanley v. Hewitt, Cir. C. of U. S. Eastern Dist. of N. Y. 1835. Journal of the Franklin Institute, v. 17, p. 165. No. for March, 1836.

but a new button to an old coat ; and it is much easier to add than to invent. And there it was also resolved, that if the new manufacture be substantially invented according to law, yet no old manufacture in use before can be prohibited."⁶⁶ But the doctrine of Bircot's case was early abandoned. Mr. Justice Buller says that, "In *Morris v. Branson*, tried at the sittings after Easter term, 1776, the patent was for making eyelet-holes or net-work in silk, thread, cotton or worsted ; and the defendant objected that it was not a new invention, it being only an addition to the stocking-frame. Lord Mansfield said, "after one of the former trials on this patent, I received a very sensible letter from one of the gentlemen who was upon the jury, on the subject whether, on principles of public policy, there could be a patent for an addition only. I paid great attention to it, and mentioned it to all the judges. If the general point in law, viz. that there can be no patent for an addition, be with the defendant, that is open upon the record, and he may move in arrest of judgment. But that objection would go to repeal almost every patent that was ever granted." There was a verdict for the plaintiff, with 500*l.* damages, and no motion was made in arrest of

⁶⁶ 3 Inst. 184.

judgment. Though his Lordship did not mention what were the opinions of the judges, or give any direct opinion himself, yet we may safely collect that he thought on great consideration, the patent was good, and the defendant's counsel, though they had made the objection at the trial, did not afterwards persist in it.⁶⁷

Mr. Justice Grose makes a similar remark upon the same case. He says, "A doubt is entertained whether there can be a patent for an addition to an old manufacture. This doubt rests altogether upon Bircot's case, 3 Inst. 184; and if that were to be considered as law at this day, it would set aside many patents for very ingenious inventions, in cases where the additions to manufactures before existing, are much more valuable than the original manufactures themselves. If indeed a patent could not be granted for an addition, it would be depriving the public of one of the best benefits of the statute of James. Lord Coke's opinion seems to have been formed without due consideration, and modern experience shows that it is not well founded."⁶⁸ And so Mr. Justice Eyre says Bircot's case is not law.⁶⁹

⁶⁷ 2 H. Bl. 489.

⁶⁸ 8 T. R. 104.

⁶⁹ Boulton v. Bull, 2 H. Bl. 491.

The cases on Watt's patent brought this question directly before the courts, for his invention was professedly an *improvement* on the steam-engine. In one of those cases which came before the Exchequer Chamber in 1795, Mr. Justice Buller said, "that a patent for an addition or improvement may be maintained, is a point which has never been directly decided; and Bircot's case, 3 Inst. 184, is an express authority against it, which case was decided in the Exchequer Chamber. What were the particular facts of that case we are not informed, and there seems to me to be more quaintness than solidity in the reason assigned, which is, that it was to put but a new button to an old coat, and it is much easier to add than to invent. If the button were new, I do not feel the weight of the objection, that the coat, on which the button was to be put, was old. But in truth arts and sciences at that period were at so low an ebb, in comparison with that point to which they have been since advanced, and the effect and utility of improvements so little known, that I do not think that case ought to preclude the question. In later times whenever the point has arisen, the inclination of the court has been in favor of the patent for the improvement, and the parties have acquiesced, where the objection

might have been brought directly before the court.”⁷⁰

The preceding cases have been cited rather to show the course of the jurisprudence on this subject, and the grounds on which an addition or improvement was held to be patentable under the English statute of monopolies, than for the purpose of establishing the point that it is so, of which there can be no doubt, since, as we have seen, the act of Congress expressly recognises the right to such a patent.

In regard to improvements, two material questions arise: 1. Whether a thing is new, or the *improvement* merely of what was known before; and 2. Where the alleged invention is described to be an improvement merely, whether it is a substantial material improvement, or only a change in form.

On the first of these questions Mr. Justice Story says, “it is difficult to define the exact cases, when the whole machine may be deemed a new invention, and when only an improvement of an old machine; the cases often approach very near to each other. In the present improved state of machinery, it is almost impracticable not to employ the same elements of motion, and in some particulars, the same manner

of operation, to produce any new effect. Wheels, with their known modes of operation, and known combinations, must be of very extensive employment in a great variety of new machines; and if they could not, in the new invention, be included in the patent, no patent could exist for a whole machine embracing such mechanical powers." "Where a specific machine already exists, producing certain effects, if a mere addition is made to such machine, *to produce the same effects* in a better manner, a patent cannot be taken for the whole machine, but for the improvement only. The case of a watch is a familiar instance. The inventor of the patent lever, without doubt, added a very useful improvement to it; but his right to a patent could not be more extensive than his invention. The patent could not cover the whole machine as improved, but barely the actual improvement. The same illustration might be drawn from the steam-engine, so much improved by Messrs. Boulton and Watt. In like manner if to an old machine, some new combinations be added, to produce new effects, the right to a patent is limited to the new combinations."

"On the other hand, if *well known effects* are produced by machinery in all its combinations *entirely*

new, a patent may be claimed for the whole machine."⁷¹

An eminent jurist remarks that "in the present improved state of the arts, it is often a question of intrinsic difficulty, especially in cases of the invention of minute additions to complicated machinery, to decide whether one machine operates upon the same principle as another, and whether that which is stated to be an improvement, be really new and useful." And he proceeds to suggest, upon the authority of the above decisions of Mr. Justice Story, that, in determining whether a machine is an improvement upon those already known, or substantially the same, "the material point of inquiry is, not whether the same elements of motion, and, in some particulars, the same manner of operation, and the same component parts are used, but whether the given effect be produced substantially by the same mode of operation, and the same combination of powers in both machines."⁷²

Here we observe that the criterions proposed are, first the diversity of effect; second, the diversity of method. Mr. Justice Story, in one of the cases cited

⁷¹ *Whittemore v. Cutter*, 1 Gallison, 478. See also opinion of Mr. Justice Story, in *Odiorne v. Winkley*, 2 Gall. 51.

⁷² *Kent's Com.* Vol. 2, p. 370, 2d edit. Lect. 36.

above, proposes the combination of these two circumstances as a criterion. But his meaning doubtless is that these are characteristic of an improvement constituting an invention which may serve to distinguish it where other characteristic distinctions are wanting; and Chancellor Kent, would not probably be understood to lay down a different doctrine. The use of different elements of motion, or different mechanical principles or combinations offer equally marked grounds of discrimination, which are no less to be resorted to, than the method of operating and the result. Indeed the result or effect can scarcely be considered a criterion, for this by itself is not, as we have seen, patentable. In order to distinguish whether an alleged invention is patentable as such, and not merely a slight, immaterial, formal variety of what was already known, whether patented or not, we must look, not at a part merely, but at all of the characteristics of a patentable invention, the elements, principles, method or mode of operation, and according as we find these, originally, more or less combined in the alleged improvement, it will appear proportionably more or less satisfactorily to constitute the basis of a patent.

The following case in the Court of King's Bench, in England, illustrates what may be considered as amounting to a patentable improvement. A patent was

granted for an improvement in the manufacturing of chain cables. The improvement was alleged to consist in so applying the link to the force to operate on it, that that force should operate in one place, namely at the end; and this was effected by having a broad-ended bar across, instead of a conical one, which broad-ended bar lapped round the link, instead of perforating it; the former bars weakened the link, and they were weak in themselves, and if broken, there would be a pressure in some other part. The links were to have circular ends, and sides nearly parallel, but bulging out towards the middle. Abbott C. J. "As at present advised, I am inclined to think that the combination of a link of this particular form, with the stay of the form used by the patentee, although the form of the link might have been known before, is so far new and beneficial as to sustain a patent." Bayley J. was of the same opinion.⁷³ In this case a link of the same form had been before in use, and it had been strengthened by a bar across it, but a change of the form of this bar, and the manner of attaching it to the link, was considered, and as it should seem with very good reason, by Chief Justice Abbott and Mr. Justice Bayley, to be a good founda-

⁷³ Brunton v. Hawkes, 4 B. and Ald. 540.

tion for a patent. The case went off, however, upon other grounds.

**Sec. XII.—CHANGE OF FORM, PROPORTIONS, OR
MATERIALS. INSUFFICIENCY OF THE INVENTION.
ORNAMENTS.**

The second section of the act of Congress of Feb. 21, 1793, c. 55, s. 3, which authorizes a patent for an improvement, declares "that simply changing the form or the proportions of any machine, or composition of matter, in any degree, shall not be deemed a discovery." This construction would undoubtedly have been put upon the law without any such express exception. It is indeed but the branch of a more general rule in giving a construction to the law, namely, that any change or modification of a machine or other patentable subject, which would be obvious to every person acquainted with the use of it, and which makes no material alteration in the mode and principles of its operation, and by which no material addition is made, is not a ground for claiming a patent. To permit a formal, trivial change in an article to be patentable, or a reconstruction of it upon substantially the same principles, with unimportant differences in form or proportions,

would defeat the beneficial operation of the statute and in effect repeal it.

The principle of this provision of the statute is as applicable to most alleged new inventions as to professed improvements on patented machines, since almost every invention is an alleged improvement, either on what has been patented, or what has been practised without ever having been subject to a patent, and as soon as a patented art or machine has become free by the expiration of the patent, it stands upon the same ground as any art or machine which has been in free public use time out of mind. To authorize a patent in either case, there must be, not merely a formal, trivial variation from what was known, but a distinguishable, substantial difference.

In a case in the English Court of Chancery, Mr. Bell, one of the counsel, justly remarked, that "it was not necessary to show that an invention was the result of long application or deep skill. He remembered that many years ago ladies wore flowered tabbies. The method of working the flowers was discovered by mere accident; a man having spit upon the floor, placed his hot iron on it, and observed that it spread out into a kind of flower. He afterwards tried the experiment upon linen, and found it produced the same

effect. He then obtained a patent, and lived to make a considerable fortune."⁷⁴

The sufficiency of the invention depends not upon the labor, skill, study, or expense applied or bestowed upon it, but upon its being diverse and distinguishable from what is familiar and well known, and also substantially and materially, not slightly and trivially so. This requisite of an invention is sometimes expressed to be a difference in principle.

"What constitutes a difference in principle between two machines, is frequently a question of difficulty, more especially if the difference in principle is considerable, and the machinery complicated. But we think it may safely be laid down as a general rule, that where the machines are substantially the same, and operate in the same manner, to produce the same result, they must be in principle the same. I say *substantially*, in order to exclude all formal differences, and when I speak of the same result, I must be understood as meaning the same kind of result, though it may differ in extent. So that the result is the same according to this definition, whether the one produce

⁷⁴ Walker v. Congreve, 29 Rep. of Arts, 2d Series, Vol. 29, p. 311.

more nails, for instance, in a given space of time, than the other, if the operation is to make nails.⁷⁷⁶

A patent for an improvement in dressing woolen cloth by damping it with steam, instead of wetting it with hot water according to the former practice, was held, by Lord Tenterden, to be void, on the ground that it was not a sufficient change from the former practice to constitute an invention.⁷⁸

Mr. Godson states from manuscript the case of a patent being cancelled on *scire facias*, on the ground of the insufficiency of the invention. A patent had been granted, in 1818, to Hadden, for an improvement in manufacturing woolen cloth by passing the wool between hollow iron rollers heated by putting heaters into them. Lister varied the process by heating the rollers by steam, and by passing the wool through hot water to soften it. This was ruled at *nisi prius* not to be a sufficient improvement upon Hadden's invention, or rather, not to be a sufficient vari-

⁷⁷⁶ Per Washington J., *Gray and Osgood v. James and others*, 1 Pet. C. C. R. 396.

⁷⁸ *The King v. Fussell*, Gods. Sup. 15. 71. The *scire facias* was instigated by Daniell to repeal Fussell's patent as an infringement of his own. Fussell retaliated by instigating a similar process against Daniell, (*the King v. Daniell*, Gods. Sup. 71,) on the ground that the mode of dressing cloth by using hot water, which was patented by him, was in use by others long before his patent was granted; and both patents were repealed.

ation from it, to constitute an invention, and the patent was on this ground repealed.⁷⁷

The question of the identity or diversity of two manufactures was much discussed in the case already cited on the patent for an improvement in the manufacture of ships' anchors. The specification stated that in place of the common method of joining the two flukes, consisting of distinct pieces of iron, to the shank by welding, which requires the iron to be so frequently heated as to destroy its tenacity, the patentee made the shank in one piece, and the two flukes in another; and the piece intended for the arms was formed of such a thickness in the middle as to allow a hole to be made through the centre, to receive the thick end of the shank; the hole was made conical or bell-mouthed, so that no strain could separate the flukes from the shank; by which means the necessity of endangering the solidity of the materials was avoided, only one heat being necessary to bring the thick end of the shank and the hole into perfect contact. In an action for an infringement, Abbott C. J. said that "the improvement claimed by

⁷⁷ *The King v. Lister*, Gods. Sup. 71. Hadden's patent was also repealed on scire facias, at the instigation of Lister on the ground that it was not a new invention. *The King v. Hadden*, Gods. Sup. 71.

the patentee, was precisely the method by which the shank of the mushroom anchor is united to the mushroom top; by which the shank of the adz anchor is united to its other parts. It is indeed the mode by which the different parts of the common hammer, and the pickaxe also, are united together. Now a patent for a machine, each part of which was in use before, but in which the combination of the different parts is new, and a new result produced, is good; because there is a novelty in the combination. But here the case is perfectly different; formerly three pieces were united together; the plaintiff only unites two; and if the union of those two had been effected in a mode unknown before, as applied in any degree to similar purposes, I should have thought it a good ground for a patent; but unfortunately, the mode was well known and long practised. I think that a man cannot be entitled to a patent for uniting two things instead of three, where that union is effected in a mode well known and long practised for a similar purpose. It seems to me, therefore, that there is no novelty in this improvement." Bayley J. "Could there be a patent for making, in one entire piece, what before had been made in two pieces? I think not. After having had a one-fluked anchor, could you have a patent for a double-fluked anchor? I doubt it very

much. After the analogies alluded to in argument of the hammer and pickaxe, I do not think that the mere introducing the shank of the anchor, which I may call the handle, in so similar a mode, is an invention for which a patent can be sustained. It is said, in this case, that the mushroom anchor and adz anchor, are not ships' anchors, but mooring anchors. I think they are ships' anchors; they are not indeed such anchors as ships carry with them for the purpose of bringing the ship up; but if the ship is required to be stationary, at a particular place, then the common mode of making it stationary, is by the mushroom anchor. So the mode adopted to bring a ship containing a floating light to an anchor, is by mooring her to one of these mushroom anchors. That is the description of anchor for a holdfast to the ship. The analogy between the case of the mushroom anchor and of the adz anchor is so close to that of the present anchor, that it does not appear to me that this discovery can be considered so far new as to be the proper ground of a patent." Best J. "It is said that the invention consists in the application of that which was known before to a new subject matter, viz. that the patentee had, for the first time, applied to the manufacturing of anchors, a mode in which welding was avoided, which however had been long practised in other instances; but the

patentee does not state that as the ground upon which he had applied for his patent, nor state in the specification, that it being known that the process of welding weakens the anchor, he had first applied to an anchor a mode long practised in the manufacture of other instruments, viz. of making the two flukes of one piece instead of two. If he had so described this process, the question would then arise, whether that would be a good ground for a patent. I incline to think, however, that it having been long known that welding may be avoided in instruments of a similar form, the application of that practice for the first time, to a ship's anchor, cannot be considered a new invention, and, therefore, that it is not the ground of a patent. It is unnecessary, however, to decide that question in this case, because the patentee has claimed the mode of avoiding welding as a new discovery."⁷⁸

Mr. Chief Justice Gibbs gives an illustration of variation in form merely. In the case of *Bovill v. Moore*, (Dav. Pat. Cas. 361,) he mentions the expedient used by a man in Cornwall, who endeavored to pirate the steam-engine. "He produced an engine, which, on the first view of it, had not the least resemblance to Boulton and Watt's; where you look-

⁷⁸ *Brunton v. Hawkes*, 4 B. & Ald. 540.

ed for the head, you found the feet, and where you looked for the feet you found the head ; but it turned out that he had taken the principle of Boulton and Watt's—it acted as well one way as the other ; but if you set it upright it was exactly Boulton and Watt's engine.”

The distinction of a mere formal variation from a substantial improvement is in many cases very nice. In a case before Lord Ellenborough, Huddart had obtained a patent for a new mode of making cables and other cordage. It appeared that his invention differed from Belfour's, because that which was effected with a ring by Belfour, was produced by a tube in the mode of making ropes by Huddart. Lord Ellenborough. “The tube does seem to me an important difference from the mere circle through which the strands pass, because it keeps them in a degree of confinement for a longer time, and more certainly obtains the end pointed out ; in Mr. Belfour's specification the same end is to be attained ; and had the patent been taken for that to be done by a tube, which was before done by a ring or circle, I should have thought the patent good ; for that is a distinct substantive invention.”⁷⁹

⁷⁹ Huddart v. Grimshaw, Day. Pat. Cas. 297.

The substitution of one material for another is not, at least ordinarily, an invention for which a patent can be claimed. Sir John Leach, in an argument made by him as counsel, in the case of an alleged improvement in the construction of barrels for containing gunpowder, said, "The making of an old machine of new materials, could not be a discovery; and the plaintiff could claim no protection, for an invention, the only merit of which consisted in being made of brass instead of wood. When tea was first introduced into this country, earthen teapots were used; but could a person who made the first one of silver be entitled to a patent?"⁸⁰ This position is correct in general, and yet there may be cases in which the substitution of a different material may be a matter of contrivance and invention, and in such a case the particular mode of applying the new material would be a good subject of a patent.

The provision on the subject of change of proportions is expressly extended by the act of Congress, to compositions of matter as well as to machines, and yet there are instances of compositions of matter in which the proportions are material. In one case one

⁸⁰ Walker v. Converse, Rep. of Arts, 2d Series, Vol. 29, p. 311. Mr. Godson cites this argument of Sir John Leach as an opinion given by him as Vice Chancellor.

ground of holding the patent to be void, was, that the exact proportions in which lime and other ingredients were to be used in making iron, to prevent *cold-short*, were not stated.⁸¹ This was assuming the proportions to be material, and if so, then a change of proportion may be an essential improvement. When the invention depends materially on the proportions of a mixture or composition of matter, and where, accordingly, a change in this respect makes a different process or a different result, such a change would certainly come within the description of patentable subjects in the second section of the act of Congress; it would not be "simply" a change of proportions.

The French law of 1791 classes mere ornaments with changes in form and proportions, as not being subjects of patents. But this appears to be a very questionable position, for it would never be contended, in case of an invention of which a part was ornamental merely, that this part might be infringed with impunity; and there appears to be no more ground for yielding any more protection to ornamental parts in an original invention, than in an improvement, or in a case where a part of the invention was ornamental, than one which should be wholly confined to ornament.

⁸¹ *Hill v. Thompson*, 3 Meriv. 624.

Sec. XIII.—LEGALITY.

An invention, to be patentable, must not only be new, but lawful. The sixth section of the English statute of monopolies, permits the monopolies of new manufactures, "so they be not contrary to the law." The acts of Congress on this subject, have contained no similar provision; nor was any such necessary in the act of Parliament, since it would be implied, though it were not expressed. The construction put upon the acts of Congress by the American courts in this respect, is the same as that put upon the act of Parliament by the English courts.

A very ingenious instrument is said to have been invented by a London pickpocket to facilitate the practice of his art, of which he made the first experiment, and successfully, upon the artist by whom it was manufactured. There needs no express exception, to prevent such an instrument from being patentable, since it would be quite absurd to encourage and reward by one law the art of violating another. So a chemical composition for poisoning people without danger of detection, would not be the subject of a monopoly under the patent law. This is in pursuance of a universal principle of jurisprudence. It is

the principle of construction of the French patent law, which contains no express exception of unlawful industry. "It would," says M. Renouard,⁸⁸ "be preposterous to guaranty to a man the exclusive right of doing what the law would punish when done."

Sec. XIV.—USEFULNESS.

By the sixth section of the English statute of monopolies it is provided that, in order to exempt a manufacture from the general prohibition of monopolies, it must be one that is "not mischievous to the State by raising the price of commodities at home, or hurt of trade, or generally inconvenient." The only part of the act of Congress of 1793, and that of July 4th, 1836, in this respect, is simply the epithet *useful*, the provision of the first section of the former, and the third of the latter, being, that if any one shall allege that he has invented a *useful* art, machine, manufacture or composition of matter, he may apply for a patent. Mr. Godson says, in regard to the requisite usefulness, that "if the article that is produced by the machine be old, it must be furnished to the public at a much cheaper rate. The community must receive

⁸⁸ P. 167. c. 5. s. 12.

some benefit from the invention ; and when it is not a new article which is introduced, the old one must, in some respect, be rendered a better commodity for trade."⁸³

In some of the earlier cases in Pennsylvania and Massachusetts for infringements of patents, the defendants, putting the same construction upon the act of Congress as that put upon the English statute of monopolies by Mr. Godson, and by some of the English judges, set up the defence that the machine, for the infringement of which the action was brought, was not a *useful* one, as it was no improvement on the methods previously in use for the same manufacture, and accordingly that it did not come within the description of inventions for which a patent was authorized.⁸⁴ On this ground of defence the decisions of Mr. Justice Story are very full and explicit. He says, "By *useful* invention, in the statute 1793, c. 156, is meant such a one as may be applied to some beneficial use in society, in contradistinction to an invention which is injurious to the morals, the health, or the good order of society. It is not necessary to

⁸³ Treatise on Patents, p. 70, 71. See *Manton v. Manton*, Davis's Pat. Cas. 349; *Lewis v. Davis*, 3 Car. & P. 502. See also remarks of Abbott C. J., 2 B. & Adol. 349.

⁸⁴ *Gray & Osgood v. James and others*, 1 Pet. C. C. R. 480, 481.

establish, that the invention is of such general utility as to supersede all other inventions now in practice to accomplish the same purpose. It is sufficient that it has no noxious or mischievous tendency, that it may be applied to practical uses, and that so far as it is applied it is salutary. If its practical utility be very limited, it will follow, that it will be of little or no profit to the inventor, and if it be trifling, it will sink into utter neglect. The law, however, does not look to the degree of utility ; it simply requires, that it shall be capable of use, and that the use is such as sound morals and policy do not discountenance or prohibit.”⁸⁸

In an action for an infringement of a patent for an improvement in the construction of pumps, the same judge said, “that it was contended by the defendant that it was necessary for the plaintiff to prove, that his invention is of general utility ; so that in fact, for the ordinary purposes of life, it must supersede the pumps in common use ; in short, that it must be for the public, a better pump than the common pump ; and that unless the plaintiff can establish this position, the law will not give him the benefit of a patent, even though in some peculiar cases his invention might be

⁸⁸ Bedford v. Hunt, 1 Mason, 302.

applied with advantage. I do not so understand the law. The St. 1793, c. 156, uses the phrase *useful* invention merely incidentally; it occurs only in the first section, and there it seems merely descriptive of the subject matter of the application, or of the conviction of the applicant. Neither the oath required by the second section, nor the special matter of defence allowed to be given in evidence by the sixth section of the act contains any such qualification or reference to general utility, to establish the validity of the patent. Nor is it alluded to in the tenth section as a cause for which the patent may be vacated. To be sure, all the matters of defence or of objection to the patent are not enumerated in these sections;⁸⁶ but if such a one as that now contended for, had been intended, it is scarcely possible to account for its omission. In my judgment the argument is utterly without foundation. All that the law requires is, that the invention should not be frivolous, or injurious to the well-being, good policy, or sound morals of society. The word *useful*, therefore, is incorporated into the act in contradistinction to mischievous, or immoral. For instance, a new invention to poison people, or to promote debauchery, or to facilitate private assassina-

⁸⁶ *Whittemore v. Cutter*, 1 Gallison, 429, 435.

tion, is not a patentable invention. But if the invention steers wide of these objections, whether it be more or less useful is a circumstance very material to the interest of the patentee, but of no importance to the public. If it be not extensively useful it will silently sink into contempt and disregard."⁸⁷

Mr. Justice Story hints, upon this kind of defence, in a case of infringement, that it, in some cases, reduced the defendant to a dilemma, since if he had not used the invention, there was no occasion to resort to this defence; if he had, the averment that it was useless came with an ill grace from him, since it was contradicted by his practice.⁸⁸ This ground of defence accordingly does not appear very frequently in the reports. It does, however, sometimes appear and is recognised as a valid objection to a patent.

It was held in England, that in an action for the infringement of an improvement, the inutility of the original invention, could not be given in evidence in defence, or in other words, though the original invention was not useful, the improvement might be so, for

⁸⁷ *Lowell v. Lewis*, 1 Mason, 182; and see also *Earle v. Sawyer*, 4 Mason, 6.

⁸⁸ *Lowell v. Lewis*, 1 Mason, 186.

it might remedy some defect in the original invention, or remove some objection to it.⁸⁹

So Mr. Justice Washington ruled, that taking this requisite in the strongest sense, still a machine might be considered useful within the act of Congress, if, by an improvement, it was capable of being advantageously put into operation. "It is not," he remarked, "the intrinsic value of the thing itself, but its capacity to be converted into something which may be useful, that gives it value. Admit, for the sake of argument, that Perkins's machine, (the one infringed upon), in the form in which it came from his hands, was so far inferior to the nail machines then in use as to deprive it of all intrinsic value; yet if another person can superadd to that invention something which will remove all its defects, and render it useful, it immediately becomes valuable, not on account of its own qualities, but because of its capacity to receive the improvement, and with its aid to become useful. The original discovery and the improvement become articles of traffic between the two discoverers as soon as the improvement was made which it was their mutual object to give value to."⁹⁰

⁸⁹ *Lewis v. Davies*, 3 Car. & P. 502.

⁹⁰ *Gray & Osgood v. James & others*, 1 Pet. C. C. R. 480, 481.

But in the more restrained sense, according to the construction of Mr. Justice Story, which is now universally adopted in the United States, the improvement on an invention that is not useful, or in other words, that is pernicious, or in the words of the English statute of monopolies, "mischievous to the state or generally inconvenient," cannot be useful, unless it diverts the invention into a different channel clear of the objection; and in this restrained sense the invention cannot be considered useful according to the doctrine of Mr. Justice Washington in the above case, on the ground that it is capable of being rendered so by an improvement.

The requisite of usefulness has been sometimes contrasted with frivolousness,⁹¹ and the multiplicity of patents for trivial subjects has been occasionally deprecated by judges."⁹² An invention may be slight and trivial as being so obvious and apparent that it cannot be considered a discovery, or it may be trivial or frivolous in respect to its effect upon industry and production. A defect in the first sense renders the patent void as being for a subject that is not an invention. But an invention of a very slender character in

⁹¹ Kent's Com. Vol. 2, p. 368, n. *Lowell v. Lewis*, supra, 156.

⁹² *Thompson v. Haight*, U. S. Law Journal, Vol. 1, p. 563.

the latter sense is still the subject of a patent, since it is not the province of the court to go into the question of the extent or degree of usefulness. It is enough that the invention is useful; how useful it may be is immaterial.⁹⁹ The inutility of an alleged invention was one of the grounds of decision against a patent in a case that came before Mr. Justice Livingston in the Circuit Court of the United States in New York, on a specification for "an improvement in folding the thread and floss cotton into skeins or hanks of a convenient quantity for retailing, with a sealed wrapper round the same, and a label containing the number and description of the article." The cotton thus folded was imported from the factory of Holt, in England. The article itself underwent no change, and the whole of the improvement consisted in putting up skeins of it, perhaps of the same size in which they were imported, decorated with a label and wrapper; thus rendering their appearance somewhat more attractive, inasmuch that it sold at a price twenty-five per cent. higher than before it was so put up. When stripped of these appendages, which it must be before using it, the cotton was no better in

⁹⁹ *Lowell v. Lewis*, *supra*, 156.

any respect than when put up by Holt. Mr. Justice Livingston said, "Now that such a contrivance—for with what propriety can it be termed a useful art within the meaning of the constitution?—may be beneficial to a patentee, if he can exclude from the market all other retailers of the very same article, will not be denied; and if to protect the interest of a patentee, however frivolous, useless or deceptive his invention may be, were the sole object of the law, it must be admitted that the plaintiff has made out a satisfactory title to his patent. But if the utility of an invention is to be tested by the advantages which the public are to derive from it, it is not perceived how this part of his title is in any way whatever established. Is any thing done to alter the texture of the cotton, or to render it better or more portable or more convenient for use? Nothing of this kind is pretended." On these grounds, and especially as the court thought that the patentee held out a false appearance and imposed upon purchasers; the patent was held to be void.⁶⁴

An invention, to entitle the inventor to a patent, "must," says Mr. Chancellor Kent, "be, to a certain

⁶⁴ *Langdon v. De Groot*, 1 Paine R. 203.

extent, beneficial to the community, and not injurious or frivolous or insignificant."⁶⁶

"The usefulness of the invention is not to be scanned with a critical eye, to ascertain a given amount of benefit to be derived from it ; but it must be useful as contradistinguished from that which is frivolous, or wholly worthless. If not frivolous or entirely useless, the requirements of the law in this particular are complied with."⁶⁷

The French law does not pretend to take cognizance of the utility of the invention. Every new species of legal industry, says M. Renouard,⁶⁷ is the proper subject of a patent, however trifling may be its utility. To exclude the inference that the patent is any guaranty of the character of the invention, the declaration has been inserted in the patent, that the government, in granting it without any preliminary examination, did not intend to guaranty, in any degree, either the novelty or the merit, nor the success of the invention. This clause was introduced on the

⁶⁶ Com. Vol. 2, p. 369. Cites *Lowell v. Lewis*, 1 Mason's R. 182; *Evans v. Eaton*, 1 Pet. C. C. R. 322; and above case of *Langdon v. De Groot*.

⁶⁷ Per Thompson J., *Stanley v. Hewitt*, Cir. C. of U. S. Eastern Dist. of N. Y. 1835. *Journal of the Franklin Institute*, March, 1836. Vol. 17, p. 165.

⁶⁸ P. 177, c. 5, s. XV. 1.

occasion of an application for a patent for a phenomenon in acoustics, by means of which answers were given to questions put in a low voice, without the inquirer's seeing the person who gave the answers. This was called the *invisible woman*. When Lucien Bonaparte, being then minister of the interior, presented that patent with divers others for the signature of Napoleon, then first consul, the latter threw the paper under the table, taking offence that it should be proposed to him to sign such frivolous documents. The minister of the interior attempted to demonstrate to him that the law ordered the issuing of patents without previous examination, however useless or absurd even, might be their objects. Thereupon the first consul proposed the three following questions to the board of arts and of commerce: 1. Whether some form of despatching these documents might not be devised that would dispense with the signature of the first consul. 2. Whether patents ought to be granted for frivolous subjects. 3. Whether a mode of granting patents might not be devised that would prevent disputes concerning priority, and the abuses which patentees might make of their privilege by representing the patent as a certificate and favorable attestation of the government, and thus leading persons into error who did not know that patents were

granted without any consideration of their merits. In consequence of these queries, the above clause was introduced into the French patents.

Sec. XV.—VENDIBILITY.

In connexion with the requisite of usefulness, we may mention another which has been considered to be indispensable, both under our act of Congress, and under the statute of monopolies, namely, that either the means or instrument, or the product of the art, method, or process patented, must be *vendible*. This word, in its ordinary sense, does not precisely express the quality intended, its usual meaning being, that the thing to which it is applied is in demand, which is not the case with all inventions. It is not provided by law that the patentee, unless he is an alien,⁹⁸ shall either sell or offer for sale, or be able to find a purchaser for the thing of which he has the monopoly; nor has either of these conditions been insisted upon by any construction put upon the law. To make any such condition, would be the same as to make it imperative upon a party to whom a reward is offered to accept it. The meaning of monopoly,

⁹⁸ Act of Congress of July 4, 1836, c. 357, s. 15.

(and a patent, as we have seen, is one,) is the exclusive *privilege* of selling the subject of which the monopoly is granted. In some monopolies, as, for instance, that of the trade to a particular foreign port, or in a particular article, a condition may be made that the monopolist shall avail himself of the privilege or lose it. So it might be provided in the patent law, that the patentee should either himself make the thing to which the patent relates, or authorize others to do so, and that the subject patented, or its products, should be offered for sale; still if it leaves him the privilege of fixing his price, this would put it in his power to prevent the sale, and so render the requisition that it should be offered for sale, ineffectual.

If the law should go still further, and provide for prescribing the terms on which the article should be offered for sale, by referring it to some board to regulate the market value, it would subject the monopolist to much embarrassment, and, at least, greatly impair the value of his privilege, besides opening a door to vexatious interference and abuse.

There might be still another provision on this subject, requiring that the matter to which the patent related, or its products, should be sold publicly within a certain time, under penalty of forfeiture of the privilege. But if the quantity or number of speci-

mens were not fixed, the provision might be easily evaded, and, in order to fix the quantity or number of specimens, it would be necessary to constitute a board, with an arbitrary discretion in the case ; to which there would be the same objections as to a board for regulating the price.

Then, again, the reason why the patentee makes no sale, may be that the invention is considered of no value whatever by any person, excepting the inventor himself, and so other persons do not regard his exclusive privilege to be any interference with their pursuits or interests. This is, in fact, the case with many patents ; and, in all these instances, there is no motive for any requisition or regulation on the subject.

And, finally, in still another case, a sale may not be practicable, though the invention may be useful and valuable, merely because it is not well understood by other persons than the inventor, or because no one, who has the necessary means and facilities for putting it into actual operation, has made it a subject of his attention.

These are reasons why the law does not, and should not, either expressly or by construction, require that the invention, or its products, of which the privilege of exclusive sale is granted, shall be sold or offered for

sale. It may be asked then, whether there ought not to be some provision against the perverseness of a patentee, who should willingly sacrifice his own interest for the satisfaction of acting the dog in the manger, and enjoy his exclusive privilege, by observing how much the public is incommoded, and how great a benefit it is in his power to withhold from them? Certainly not; for this is an inconvenience and deprivation to which the community is exposed in another case, namely, that of an artist who is able, by his superior genius and skill, to produce the most admirable work, but who, from indolence, or some other vice, or, as sometimes happens, from mere waywardness, neglects to make use of the exclusive privilege conferred by his superior genius and skill. His privilege differs, at the first view, from that of a patentee, inasmuch as that of the latter is one of express grant from the government; but this difference will not be so material, on consideration, as it might at first view appear, since the grant is made, not like that of a branch of foreign trade, in consideration that it is to be used during the existence of the privilege, but in consideration that the patentee has given a specification whereby the public may have the benefit of his invention at the expiration of his privilege. During the privilege, therefore, all the conditions having been

complied with, it stands on the same ground as any other private right, as that of property, or of using one's industry, and so should be subject to the same rules of legislation and regulation, and no others. In regard to all kinds of private rights, the community is affected by the good or bad use of them; but in this, it is necessary to rest, in some degree, upon individual discretion, since it is impossible to give directions for the use of all individual rights, in all respects, and one universal exception is made to the expediency of any legislative regulation, namely, when the real and obvious interest of the individual is coincident with that of the public. In such cases, the interest of the community is generally left free to be promoted or prejudiced, according as the individual has or has not the good sense to make the use of his rights, that his own interest, properly understood, would dictate.

If, then, the doctrine that the subject of a patent or its products, must be vendible, does not mean that a demand for it must exist, nor that there must necessarily be an offer for sale, as an essential condition of the validity of the monopoly, what is the construction to be put upon the doctrine? It is, that the thing patented, or its products or results, must be of a vendible character or description; or, such as *can* be the subject of a sale. This is the construction given to

the rule by Mr. Godson,⁹⁹ for which he cites the expressions of judges, in giving their opinions in patent cases, though he says no case has turned upon precisely this question.¹⁰⁰

Sec. XVI.—NOVELTY, PRIORITY.

It is an essential requisite that the invention shall be *new*. This is expressly provided in the English and American statutes, on this subject. The very terms *invention* and *discovery* import, in their general and most obvious signification, that the thing discovered or invented is *new* to the inventor. But it is not so distinctly and necessarily implied in those terms how far it must be new to other persons, as to exclude all doubt, since an invention may be new to the inventor, which is familiar to many others; or it may be new in his neighborhood, and well known in other parts of the country; or it may be new in his own country, while it is in familiar use abroad. And again, although it may have been already known, it may have been so recently invented, as to be still *new*, at the time of the posterior invention. Had the statutes

⁹⁹ P. 65.

¹⁰⁰ He cites the expressions of Heath J., 2 H. Bl. 482; Kenyon C. J., 8 T. R. 99; and Abbott C. J., 2 B. & Ald. 349, 350.

stopped here, however, and authorized a patent for a *new* invention, without further explanation, the expression must have been limited by construction, and confined to a patent either to the first or *original* inventor, or to the first applicant for a patent, since the patent is an *exclusive* privilege of the making and vending the thing patented, and it is therefore necessary, in order to give the statute effect, to define expressly in the act, or in the construction put upon it, by what criterion the novelty is to be tested. The statutes do not accordingly stop here; they both go further, and define what is to be understood by the thing being new. The statute of James limits the privilege to manufactures, "which others at the time of the making such letters patents, and grants, did not use." So the act of Congress limits the privilege in like manner to the things "not known or used before the application" for the patent.

On this subject of the novelty of the invention, we shall find some difference between the English laws on one side, and that of the United States on the other.

The first inquiry relates to the time in reference to which the invention must be new. Must it be so at the time of the granting of the patent, or at least at the time of the application for it, or is it enough that

it is so at the time of the invention by the party claiming a patent? M. Renouard seems in one place to consider it requisite in France that the thing should be new at the time of issuing the patent. He says¹⁰¹ "it is very rare that the discussion may not be referred to this single inquiry, namely, whether the public, at the moment of the delivery of the patent, does, or does not, receive the communication of a species or mode of industry which it did not before possess;" if it does the patent is valid, otherwise it is null. This is the rigorous doctrine of the English law,¹⁰² from which M. Renouard apparently adopts it.

The doctrine strikes the mind as preposterous in either country, but more palpably so in England, where ordinarily very considerable time necessarily elapses between the application and the granting of the patent, so that the inventor thereby, in the very act of applying for a patent, takes the hazard of defeating his right to one, since he thereby gives some publicity to his invention, and thus unavoidably holds out to others a facility in pirating it before the patent can be issued, and so is obliged to risk the rendering his patent void by the very means he is compelled by

¹⁰¹ C. 5, s. 1, p. 174.

¹⁰² *Jones v. Pearce*, Godson Sup. 4.

law to take to obtain it. Nothing can be imagined more preposterous than this doctrine. It could hardly be supposed that a doctrine, so repugnant to the principles and spirit of the patent laws, could have arisen by mere construction of language, which admitted of any other interpretation ; and we accordingly find, by recurring to the fifth and sixth sections of the English statute of monopolies, which constitute the patent laws of England, that it is derived from the language of the law taken in a strict and literal sense. The sixth section of that law, after abolishing monopolies generally, makes an exception of temporary monopolies for the sole working and making of any manner of new manufactures to the true and first inventor, "*which others, at the time of making such letters patents and grants, shall not use.*"

By taking this clause in a literal sense, the English courts have gone far towards defeating and annulling the encouragement intended to have been given to inventors by that section ; and if we may rely upon M. Renouard's exposition of the French law, the same doctrine, so fatal to patents in England,¹⁰³ has been adopted in France. The operation of the doctrine would not probably be so prejudicial to the

¹⁰³ Westm. Rev. No. 48, Jan. 1835. Foster's Am. Edit. p. 100.

interests of inventors in that country as it has proved to be in England, since, in examining the proceedings for the taking out of a patent, as described by that author, it seems that much less time would be requisite than is necessarily consumed in England, in applying to one office after another, before the inventor can obtain the grant promised to him by the law. Still the doctrine is the same, and bears upon its face the same absurdity, in one country, as in the other. It has the effect of exposing the inventor to the loss of his right by piracy, if he delays taking out his patent for the purpose of making experiments to perfect his invention.¹⁰⁴ The ground of this doctrine, as far as it can be supported otherwise than on the literal provision of law, is, that a thought or art having been published, and the public having taken advantage of it and reduced it to use, is their property, from whatever source they may have obtained the information. But a moment's reflection will show us that there would be the same reason precisely for sheltering a public use arising after the grant of the patent, as one arising after the application for it, since

¹⁰⁴ Westm. Rev. No. 43, Jan. 1835. p. 100, Foster's Am. Ed.; where the writer cites the evidence taken before the Committee of the House of Commons on this subject.

the application may as well be presumed to be known to all people as the patent.

There does not, on the whole, seem to be any foundation for this doctrine, unless it is found in a stern provision of the law, too plain and absolute to be controlled by construction, which is not the case with the section of the statute of monopolies above cited, since it is an absurdity so to construe a law as to hold that the very means prescribed by the law as a compliance with its provisions, should, without any fault of the party for whose benefit the law is made, expose him to a forfeiture of its benefits. We shall introduce the authorities as to the degree of publicity and kind of use by others by which the inventor forfeits his privilege, in a subsequent part of this chapter ; for whether the time to which reference is had in determining on the novelty of the invention be the date of the invention, of the application for a patent, or the grant of it, the doctrine as to the degree of publicity, or extent and kind of use whereby the patent is defeated, may be the same. The cases subsequently cited will show very distinctly that the doctrine of the English law is as above laid down, and, in the course of the examinations that took place on the subject of patents before the committee of the British House of Commons in 1829, a number of the

gentlemen whose statements were taken by the committee, represented, in very strong terms, the inconveniences resulting to patentees from this doctrine.¹⁰⁸

The same question has come up in discussion in the United States. "There is," says Mr. Justice Story, "a difference between the language and effect of our statute respecting patents, and that of England. The statute 21 Jac. 1, c. 3, prohibits the grant of monopolies generally; but in the sixth section it excepts 'letters patent and grants of privileges for fourteen years or under, of the sole working or making of any manner of new manufacture *within this realm* to the *true* and *first* inventor and inventors of such manufacture, which *others, at the time of making such letters patent and grants, shall not use.*' Upon this statute it has been held, that it is not necessary that the invention should be new to all the world, but it is sufficient, if *new within the realm of England*, and it matters not whether learned by travel or by study. The provision further is, that it must be an invention which others, at the time of making the letters patent, '*shall not use.*' Therefore it was

¹⁰⁸ Westminster Review, No. 43, Jan. 1835. Foster's American Edition, p. 100. Report of Com. of British House of Commons, p. 6, 8, 18, 19, 20, 24, 26, 53, 55, 74, 76, 81, 104.

held, in *Wood v. Zimmer*, (Holt's R. 58,) by Lord Chief Justice Gibbs, that if the inventor, before obtaining a patent, allows his invention to go into public use, he cannot entitle himself to a patent. The public sale of it, by the inventor to other persons for use, makes the patent void. It is not then *new* to the realm, but is *used* by others within the meaning of the statute."

"The patent act of the United States, st. 1793, c. 156, uses language somewhat different. The first section declares, that 'when any person or persons, &c. shall allege that he or they have invented any *new* and useful art, machine, manufacture, or composition of matter, or any *new* and useful improvement on any art, machine, manufacture, or composition of matter, *not known or used before the application*,' he or they shall, on application to the Secretary of State, &c. be entitled to a patent. If this were all, there would be great difficulty in construing the words '*not known or used before the application*' differently from the words of the English statute, '*which others, at the making of the letters patent and grants, shall not use.*' We should be driven, therefore, to consider the accuracy of the decision of Lord Chief Justice Gibbs. But the sixth section of the st. 1793, c. 156, throws light on this subject, and enables the court to ascer-

tain with more precision the intention of the legislature. That section authorizes the defendant to give certain matters in evidence, by way of defence, under the general issue, upon proper notice, and among other things, that the thing thus secured by patent was not originally discovered by the patentee, but had been *in use*, or had been described in some public work, anterior to the supposed discovery of the patentee. Upon these clauses it has been uniformly held, that it must be shown that the invention is new, not only in the United States, but to the world, and that it was not *in use* before the asserted discovery. The fact of its being *in use* before his *discovery*, is, by the sixth section, made decisive against the patentee. Now if the intention of the legislature had been, by the first section, to provide that the mere fact of the invention being '*known or used*' even with the inventor's permission, before the application for a patent, should destroy his right, however otherwise well founded, it is strange, that the use should not be limited, in the sixth section, to the time of such *application* instead of the '*supposed discovery*.' The sixth section manifestly proceeds upon the ground, that the same thing being in use at the time of the supposed discovery, establishes, that there is nothing new in the invention; but it may be known and used

at the time of the application for a patent, and yet the applicant have been the true and first discoverer. And the words of the first section are susceptible of the same construction. The things sought to be patented must be something 'not known or used' by others before, but must be *first* known or *first* used by the person claiming to be the inventor; that is, others must not have known or used it before his discovery. Upon any other construction, if a party were the true and first inventor, yet if, before his application for a patent, another were to know his invention or use it, piratically or innocently, the first inventor would be ousted of his right to a patent, which is inconsistent with the spirit of the act. Construing, therefore, the first section by the sixth, it seems to me, that the true meaning is, that the first inventor has a right to a patent, though there may have been a knowledge and use of the thing invented, by others, before his application for a patent, if such knowledge or use was not anterior to his discovery."¹⁰⁶

It being once settled that the first inventor is entitled to a patent, it follows of course that the period referred to for testing the novelty of the invention is not the date of the *application*, since, at this date, in

¹⁰⁶ Mellus v. Silabee, 4 Mason, 108.

case of successive independent inventions of the same thing, whichever of the inventors applies, the manufacture has been *known* and *used* by another person independently of the applicant. The general object of the law must, therefore, be defeated in those cases where there are independent inventions of the same thing, or the date, not of the application, but of the invention, must be referred to in determining on the novelty of the art or manufacture. At the time of the invention by the prior inventor, he has a right to a patent, of which he may avail himself unless he subsequently forfeits that right. By the law on this subject, as construed and administered in the United States, he may realize the fruits of his invention unless he loses them by his own negligence; whereas in England, as we have seen, he may be deprived of his privilege, though he may not be chargeable with any fault or negligence. The characteristic difference between the law on this point, as administered in England and the United States, is, that in England the inventor is not supposed to have any right whatever in his invention until the grant of the patent, whereas in the United States the law supposes him to have a right at the time of invention, which he may forfeit, it is true, but which it depends on him-

self either to forfeit, or, by taking the proper steps, to perfect and establish.

In reading the English and American cases, it is necessary to bear constantly in mind the distinction above pointed out. In regard to England, for instance, if the inquiry relate to the use of the invention by others, as affecting the rights of the patentee, the use or *knowledge* at the time of granting the patent is referred to, whereas in the United States the inquiry would, to many purposes, relate to the use made of the manufacture by others at the time of the patentee's invention, for we suppose him to invent the thing at any rate, in order to raise any question, since, if he be not the inventor, he has no claim for a patent; and, on the other hand, if he be the inventor, he has no claim, if others knew of and used the art or manufacture at the time of his making the invention.

There is distinction in terms between a prior *invention* and a prior *use*, though in relation to this subject the two expressions mean, in some respects, substantially the same thing, but in other respects they are distinguished from each other. In the leading sense of the term *invention* it signifies an intellectual process, that is, to use Dr. Johnson's definition, an *excogitation*. In treating of the subject of invention in a former

section,¹⁰⁷ it appears, however, that the law does not regard a mere conception, imagination, or intellectual process, as being the subject of a monopoly, independently of its reduction to use. The things for which patents are grantable, we have seen, must be arts, machines, manufactures, practical methods or processes or applications of principles, or compositions of matter ; to lay a foundation for a patent, something must be wrought, done or produced. The same construction is necessarily adopted in considering the question of prior invention ; the question of priority is not limited to the mere conception, but has respect to the invention as already explained, and if the patentee is the prior inventor in this sense his patent will not be defeated merely because some other person may before have imagined something of the same sort.

That the prior inventor, in the sense already explained, has the preference, and is entitled to a patent, unless he forfeits his right, is held in many cases.¹⁰⁸

The kind of use or reduction to practice, and putting into operation, necessary to constitute an invention, so

¹⁰⁷ Section 8.

¹⁰⁸ *Lowell v. Lewis*, 1 Mason's R. 183. Per Dallas J., *Hill v. Thompson*, 2 J. B. Moore, 451.

as to entitle a party to a patent, or to defeat the claim of a subsequent inventor, is very distinctly pointed out by Mr. Justice Story. He says, "The first inventor, who has put the invention in practice, and he only, is entitled to a patent. Every subsequent patentee, although an original inventor, may be defeated of his patent right, upon proof of such prior invention's being put in use. The law in such case cannot give the whole patent right to each inventor, even if each be equally entitled to the merit of being an original and independent inventor; and it therefore adopts the maxim, *qui prior est in tempore, potior est in jure*. The statute 1793, c. 156, s. 6, declares it a good defence to an action for the infringement of the patent right, 'that the thing thus secured by patent was not originally discovered by the patentee, but had been in use, or had been described in some public work anterior to the supposed discovery of the patentee.' The intent of the statute was to guard against defeating patents, by the setting up of a prior invention, which had never been reduced to practice. If it were the mere speculation of a philosopher, or a mechanician, which had never been tried by the test of experience, and never put into actual operation by him, the law would not deprive a subsequent inventor, who had employed his labor and his talents in putting it into

practice, of the reward due to his ingenuity and enterprise. But if the first inventor reduced his theory to practice, and put his machine or other invention into use, the law never could intend, that the greater or less use in which it might be, or the more or less widely the knowledge of its existence might circulate, should constitute the criterion by which to decide upon the validity of any subsequent patent for the same invention. I hold it, therefore, to be the true interpretation of this part of the statute, that any patent may be defeated by showing that the thing secured by the patent, had been discovered and put in actual use, prior to the discovery of the patentee, however limited the use or the knowledge of the prior discovery might have been."¹⁰⁹

In an action for the violation of a patent right to a machine for making cotton and wool cards, the same judge said that "it would not be sufficient to protect the plaintiff's patent, that this specific machine, with all its various combinations and effects, did not exist before ; for if the different effects were all produced by *the same application* of machinery, in separate parts, and he merely combined them together, or added a new effect, such combination would not sustain

the present patent, which was taken out for the whole machine, any more than the artist who added the second-hand or repeater to a watch, could have been entitled to a patent of the whole watch."¹¹⁰

In another case the same judge says, "The first inventor of a machine is entitled to the benefit of his invention, if he reduce it to practice and obtain a patent therefor; and a subsequent inventor, although without any knowledge of the prior existence of the machine, or communication with the first inventor, cannot, by obtaining a patent therefor, oust the first inventor of his right, or maintain an action against him for the use of his own invention."¹¹¹

But if the first inventor keeps his invention secret and takes no steps towards obtaining a patent, and especially if it appears that he does not intend to apply for one, a subsequent inventor of the same thing will be entitled to a patent.¹¹² So it has been held in England; and the act of congress of July 4,

¹¹⁰ *Whittemore v. Cutter*, 1 Gallison, 482.

¹¹¹ *Woodcock v. Parker*, 1 Gallison, 438. See also *Bedford v. Hunt*, 1 Mason's R. 302; *Evans v. Eaton*, 3 Wheat. R. 454; S. C. 1 Pet. C. C. R. 322; *Reutgen v. Kanowrs*, 1 Wash. C. C. R. 168; *Dawson v. Follen*, 2 Wash. C. C. R. 311.

¹¹² *Case of Dolland's Patent for an improvement in the object glass of the telescope*, 2 H. Bl. 487, and see *Forsyth v. Reviere*, *Chitty's Prer. of the Crown*, 182. n.

1836, c. 357, s. 15, adopts the doctrine by providing that a patent shall be void where the patentee has surreptitiously obtained it for "that which was invented or discovered by another who was using reasonable diligence in adapting and perfecting the same," thus implying that if he was using such diligence he shall not stand in the way of another.

A case in the English reports supplies an exception to the doctrine as to the priority of invention which will entitle the inventor to a patent as above laid down, namely, where the first inventor, though he reduces the invention to use, yet keeps it secret, and shows an intention not to give the public the benefit of it. It was the case of an improvement in the object-glass of telescopes, invented by Mr. Hall, but suppressed by him until Mr. Dolland had subsequently made the same invention and procured a patent for it, the validity of which was disputed on the ground that he was not the first inventor. But the patent was held to be valid.¹¹³

Mr. Justice Buller puts this case upon the ground that Dolland was the first publisher of the invention; but it cannot be supported upon this ground merely,

¹¹³ 2 H. Bl. 487. See also *Forsyth v. Reviere*, Chitty Jr's. Prer. of the Crown, 1822, n.

since it would put the priority, not upon the circumstance of the invention, but of the publication, which would be contradictory to the current of the decisions. It must stand upon the ground that, as the first inventor did not give the public that advantage of his discovery which it was the intention of the patent laws to secure, he should not stand in the way of a subsequent inventor who should be ready to give the public such advantage, at the end of the period of the monopoly provided for by the patent laws. That is, as the inventor now permits the public to use his invention without taking out a patent is held thereby to abandon it to the public, so that if he uses it in secret, without applying for a patent and in a way to show that he does not intend to apply for one, he ought to be considered as having abandoned his right to claim a patent.

Under the act of congress of 1793 Mr. Justice Washington laid down a doctrine at variance with that of Dolland's case. He considered that the inventor lying by for ever so long a period, and not taking out a patent, or continuing to use his invention, did not thereby forfeit his right of a patent, and that he might thus stand in the way of a patent being granted to any other inventor of the same thing. The law is now, as I presume, settled to the contrary by the statute of 1836.

There is one case, however, where, by our law, the priority must be determined by the date of the patent, namely, that of simultaneous inventions by different persons, neither of whom is apprized of the other's invention; for in these circumstances, the party who has first obtained a patent is presumed to have a right until the contrary is shown, and it would be impossible to prove a prior or better right in another person. But if both applied at the same time for a patent, and their claims were referred to arbitrators, according to the statute, no patent could be granted unless the point of priority were decided in favor of one of them, and perhaps a case could hardly occur which could not be decided, if the claim turned merely upon the question of priority. It seems, however, from an English case, that where there is no other ground of discrimination the priority of application would decide the right.¹¹⁴

It will appear, when we come to the subject of the specification, that the patentee must be entitled to a patent for all that he alleges himself to have invented, or his patent will be void. It follows, from this doctrine, or rather is included in it, that if the patentee

¹¹⁴ *Forsyth v. Reviere*, 1822, n. *Chitty Jr's. Prer. of the Crown*.

is the prior inventor of only a part of what is patented, the patent will be void.¹¹⁸

In a suit for an infringement of a patent for an improved iron carriage wheel, by which the weight was made to bear upon the circumference instead of bearing upon the centre or nave, it appeared that a carriage wheel of wood and iron had been invented and used eleven or twelve years before, by Mr. Strutt, in which also the weight had been made to bear upon the circumference, the inventor of which died soon after the invention, which had not been followed up, no new wheels of the same description having been made after the first three made by the inventor himself. Mr. Justice Patteson instructed the jury that if it appeared that Strutt's wheel was on the same principles, and in substance the same wheel as the plaintiff's, and it had been used openly and in public, so that every body might see it, and that the use of it had continued up to the time of the plaintiff's taking out his patent, it would be a ground to say that the plaintiff's invention was not new; but if it appeared that Strutt's wheel was a mere experiment, that he found it did not answer, and that he ceased to use it,

¹¹⁸ *The King v. Cutler*, 1 Stark. N. P. 354; *Brunton v. Hawkes*, 4 B. & Ald. 540.

and abandoned it as useless, and nobody else followed it up, and that the wheel in question in the case was the plaintiff's own invention, and remedied the defect in Strutt's, which (though he should not have seen that wheel,) there was then no reason for saying the invention of the plaintiff was not new. The jury found a verdict for the plaintiff.¹¹⁶

SEC. XVII.—PREVIOUS PUBLICATION.

It follows, from the doctrines already stated, that a mere previous hint, or oral suggestion, or description of the invention will not, of itself, defeat the patent of a subsequent original inventor, that is, one who did not derive any hint from any other person, since the person who thus first gave a hint or suggestion of the invention is supposed not to have reduced it to practice, or, in other words, had not matured his conception into what the law regards as an *invention* that is the subject of a patent. The law is the same in this respect in England and the United States.

But there is a material difference in the effect of an oral publication in England or France, and the United States, where the invention has been reduced

¹¹⁶ *Jones v. Pearce*, Godson's Sup. 10.

to practice in consequence of such a publication ; for, as we have seen, in England and France, the novelty of the discovery is tested in reference to the date of the patent, whereas in the United States it is tested in reference to the date of the discovery. We perceive how prejudicial the rule adopted in England and France must be to the interests of the inventor, and to the beneficial operation of the patent law, by depriving the inventor of all the advantage of communication with others on the subject of his invention previous to taking out his patent, for if he so makes it known, it may give others an opportunity to defeat his patent by piracy.

An instance of the danger an inventor is under of losing the benefit of his invention, by letting it in any way transpire before he has the great seal, is mentioned by Mr. Davis. A person had invented an improvement upon spectacles, and as his patent was in a state of forwardness, he had not been sufficiently cautious in keeping the invention to himself, so that another person, in the same trade, had acquired a knowledge of it, and hastily got a pair made upon the same construction, and exposed them in his window ; fortunately, however, the inventor happened to pass the shop, and seeing them, employed a friend to go and purchase them, in which he succeeded, and his

patent passed the great seal the next day, before there was time to get any more made ; and it is said that by this the patent was rendered secure.¹¹⁷

Upon this case, Mr. Godson remarks, "that it did not appear that this patent ever came before the court. There are many reasons which may, it is conceived, be assigned why the grant would not be good in law. By the imprudence of the discoverer himself, two persons at least became acquainted with his invention before the patent was sealed, and one actually made the article and exposed it to sale. The moment the third person bought it, he, as one of the community, took possession of it. It was then made public, if it had not become so by the exposure to sale. It is difficult to imagine upon what principle this publicity could be done away with ; certainly not by the gift of it back to the discoverer. There was knowledge of the secret—an actual making—and a public sale by a person who was not the patentee."¹¹⁸

Such is Mr. Godson's view of the English doctrine on this subject. In whatever relation we view the subject, we meet with the inconveniences of that unfortunate doctrine. Whereas, on the contrary, in

¹¹⁷ Dav. Pat. C. 445.

¹¹⁸ Godson, 63.

the United States, where the law is satisfied if the invention was new at the time of its being made, the inventor, by making his invention known as soon as he has reduced it to practice, not only does not thereby incur any risk of losing the advantages of it, but rather makes them more secure to himself, by supplying himself with proof of the date of his invention.

The doctrine of the English courts, that the inventor, by disclosing his secret, and permitting the use of his invention before obtaining a patent, though without the intention of waiving his privilege, in fact forfeits his right to a patent, has been adopted in France in its full rigor, as appears from an adjudication of the Court of Errors, of February, 1806. In that case the inventors of a carding machine had disclosed their invention to the municipal administration of Orleans, who, at their request, had tested its utility by a public inspection and experiment, of which they had given a formal certificate to the inventors. The inventors had besides voluntarily permitted a manufacturer to use their machine to card with. It was adjudged that in thus giving publicity to their invention, they had voluntarily made it public property, and consequently, that the patent subsequently ob-

tained by them, though in other respects legal, was invalid."¹¹⁹

The inventors complained of this decision as being too rigorous, and contended that their intention to abandon their privilege ought not to be presumed, but, on the contrary, that their right ought to remain unimpaired, unless an intention to abandon it were clearly proved. But M. Renouard, in 1825, approves of the judgment, on the ground that it was immaterial to the public, whether it was the intention of the inventors to abandon their privilege, or retain it; that the only question was, whether publicity had been given to the invention, from whatever cause, for it was this publicity which gave the public the right, and consequently deprived the inventors of their privilege. He thinks, however, that the inventor has, in such case, an action against one who may have injured him by a piracy of his invention.

The same author puts the case of a patent being taken out by the party who has pirated the secret, before the invention has been patented by the inventor, and is of opinion that, though the inventor is thereby despoiled of the privilege of taking out

¹¹⁹ Renouard, c. 5. s. 1, p. 170, cited by him from the General Jurisprudence of M. Dalloz, t. 2, p. 263.

another patent, yet he has the right to be substituted in the patent taken out, for the party who has thus fraudulently obtained it. For in such case, he says, the public has obtained such possession of the invention as is inconsistent with his privilege. Neither the English law, nor our own, has any form of proceeding for such subrogation or substitution; but our law admits of the inventor's taking out a patent himself, and then procuring the one previously taken out to be cancelled, or treating it as null and void, and prosecuting the piratical party, and those claiming and using the right under him, for an infringement of his patent.¹²⁰

The case is otherwise if the invention has been described in some public work. The act of Congress is explicit upon this point. The sixth section of the act of 1793, in enumerating a number of defences in an action for the infringement of a patent, on the establishment of either of which, the court may declare the patent to be void, mentions, as one of these defences, proof that the invention was not originally discovered by the patentee, but had been in use, *or had been described in some public work*, anterior to the supposed discovery of the patentee. The seventh

¹²⁰ See Renouard, c. 8, s. 2, p. 313, 314.

section of the act of 1836, c. 357, provides that a thing is not patentable "if it has been patented or described in any printed publication in this or any foreign country;" but by the eighth section of the same act, the inventor is not deprived of his right to take out a patent for his invention, "by reason of his having taken out letters patent therefor in a foreign country, and the same having been published at any time within six months preceding the filing of his specifications and drawings." If the invention be orally described by one, and another, upon the suggestion, reduces it to practice, the latter is not the inventor. But the mere fact of the invention having been orally described by one person to another, but never described in any published work, will not defeat the right of a subsequent original inventor, to a patent; that is, a subsequent inventor who derives no advantage from such prior description.¹²¹ But if the thing has been described in some printed publication, otherwise than by reason of the inventor's having taken out a foreign patent within the six months previous to the filing of his specification, whether it has been reduced to practice or not, a patent can-

¹²¹ That is, if not reduced to practice. See as to oral publication, Report of Committee of British House of Commons, 1829, p. 9, 10, 18, 19, 20, 74, 75, 76, 153.

not, under the act of Congress, be subsequently taken out for it. In such case, the description belongs to the public, and any one person cannot, by reducing the thing to practice, deprive others of the advantage of the description. The law does not confine itself to the case of a party who may be proved to have availed himself of the published description; it enacts generally and absolutely that where a thing has been described in a "public work," it shall thereupon cease to be patentable. "It may be," says Chief Justice Marshall, "that the patentee had no knowledge of this previous description; still his patent is void; the law supposes he may have known it."¹²²

And the same rule has, by construction, been incorporated into the English law, upon this subject.¹²³

Upon these provisions the question may arise: What is a description? We have no decisions upon this question. M. Renouard remarks, that "it is not enough to defeat a patent that the thing has been *mentioned* in some public work, it must have been *described*;"¹²⁴ that is, the publication must give such an explanation of the thing, as may, in some degree,

¹²² *Evans v. Eaton*, 3 Wheat. 454.

¹²³ Renouard, c. 5, s. 1, p. 176.

¹²⁴ C. 5, s. 1, p. 176.

answer the purpose of the specification in a patent. The courts would not, probably, require that the description should fully answer as a specification, but they would not consider any statement to be a description within the meaning of this clause, which should not serve as a direction for making, doing, or compounding the thing to which the description related. This is the construction adopted by M. Renouard.

The same author also considers the question, What is a *publication* of the description within the meaning of the French law? the phraseology of which is equivalent to that of the act of Congress of 1836, the expression of the French law, section 16, being, that the patent shall be void if the thing patented had already been "described in printed and published works." As the law makes no distinction as to the language or place, M. Renouard thinks that a description in a work printed in any language, at any place, is within the provision of the law. It does not appear what publication will be considered by our courts a "public work" within the act of Congress of 1793. The provision of the act of 1793 is applicable to all patents granted before July 4th, 1836. The court certainly would not limit the construction to a work published in the United States, nor to works published in the English language; but whether they

will take the position laid down by M. Renouard, remains to be seen.

Sec. XVIII.—FOREIGN INVENTIONS.

In regard to the novelty of the invention, there is one material difference between the construction given to the section of the English statute of monopolies, that has constituted the English patent law, and our patent acts. The exception of the general prohibition of monopolies in the English act of parliament, as we have seen, is of the monopoly of the "sole working or making of any manner of new manufacture *within this realm*;" which has been construed to extend, not only to inventions originally made in England and not known elsewhere, but also to inventions made abroad and introduced into England, since such inventions were considered to come within the conditions of the exception, because they were *new in England*. This construction arose out of the practice of granting patents at the common law for imported inventions.

In the case of the Clothworkers of Ipswich, which occurred nine years before the statute of monopolies was passed,¹²⁶ it was said by the court, that "if a man

¹²⁶ Godbolt, 252.

bath brought in a new invention and a new trade within the kingdom, in peril of his life and consumption of his estate or stock, &c. or if a man hath made a new discovery of any thing, in such cases the king, of his grace and favor, in recompense of his costs and travel, may grant by charter unto him, that he only shall use such a trade or traffic for a certain time, because, at first the people of the kingdom are ignorant, and have not the knowledge or skill to use it. But when that patent is expired, the king cannot make a new grant thereof; for when the trade is become common, and others have been bound apprentices in the same trade, there is no reason that such should be forbidden to use it."¹⁹⁶ The same doctrine prevailed after the statute of monopolies was passed. It was early held, under that statute, that a grant of a monopoly may be to the first inventor by the 21 Jac. 1; and if the invention be new in England, a patent may be granted, though the thing was practised beyond sea before; for the statute speaks of new manufactures within this realm; so that if they be new here, it is within the statute; for the act intended to encourage new devices useful to the kingdom, and whether learned by travel

¹⁹⁶ And see 9 Johns. R. 58, 582, 583, 584. Per Kent C. J.

or by study, it is the same thing.¹²⁷ The patent law of France is similar in this respect.¹²⁸

Mr. Farey, one of the persons examined by the committee of the British Commons, in 1829, discusses the question of the expediency of patenting inventions introduced from abroad, at some length, and concludes that it is decidedly expedient to allow patents in such cases to persons who introduce an invention, though themselves not the inventors, for the purpose of promoting a more early introduction of the invention, and to remunerate the patentee for the expense of introducing it.¹²⁹

The law of the United States makes no distinction between inventions made abroad and at home as to the right of taking out a patent, except that a foreigner not resident in the country, and not having made a declaration of his intention to become a citizen, pays a higher fee than a citizen or an alien resident in the country and having made such a declaration. But only the inventor himself can take out a patent in the United States, whether a citizen or alien.¹³⁰

¹²⁷ Agreed by Holt and Pollexfen. *Edgeberry v. Stephens*, 2 Salk. 447.

¹²⁸ Renouard, Paris Edit. of 1825, p. 423, law of 1791, s. 9.

¹²⁹ Rep. p. 153, 154, 155.

¹³⁰ Act of July 4th, 1886, c. 357, s. 6 & 9.

SEC. XIX.—DELAY TO TAKE OUT A PATENT. ABANDONMENT OF THE INVENTION. DEDICATION TO THE PUBLIC.

The case of Dolland's invention of an improvement in the telescope has already been mentioned, where Dr. Hall, who had first invented the same improvement, delayed to take out a patent for a long time, and kept his invention secret. Dolland, having subsequently made the same invention without any knowledge of its having been previously made by Dr. Hall, took out a patent, which was held to be valid.¹³¹ In that case the mere fact of delay, without any act or neglect showing an intention to dedicate the invention to the public use, was held to be a forfeiture of the right to take out a patent as against another who took the proper steps to secure his right. The doctrine of this case seems to have been recognised in a subsequent one.¹³² This principle can hardly be objected to, since the first inventor, if he chooses not to give the public the use of his invention, which the patent law was intended to encourage, but to keep it to himself, ought not to have the right to stand in the way of the

¹³¹ 2 H. Bl. 483.

¹³² *Forsyth v. Reviere, Chitty Jr's. Prer. of the Crown*, 182, n.

public interest, and that of any other inventor who is willing to give the public the use of the invention after the expiration of the temporary monopoly provided for by the patent laws.

A provision of the act of Congress of July 4th, 1836, c. 357, s. 15, seems to countenance the doctrine that an inventor, who lies by, shall not stand in the way of another inventor of the same thing who applies for a patent, for in enumerating the defences which may be made in an action for the infringement of a patent, it is provided that the defendant, who is charged with an infringement, may give in evidence, in defence, that the plaintiff "surreptitiously and unjustly obtained his patent for that which was in fact invented by another who was using reasonable diligence in adapting and perfecting the same," which seems to imply that if an inventor is not using reasonable diligence in adapting and perfecting his invention, that is, if he has perfected it, and lies by, or if he has given it over without perfecting it, he does not stand in the way of other inventors.

This seems to be a very reasonable doctrine, and the provision is certainly of great importance, if its construction is as above supposed, and it seems a little remarkable that it should be enacted so merely inci-

dentally and by inference, as in the section above cited.¹³³

On the subject of delay to make experiments to perfect the invention, Mr. Godson remarked, in 1825,¹³⁴ speaking of the English jurisprudence, that "whether *experiments*, with a view to try the efficacy of an invention, or the full extent of a discovery, are a *using* within the meaning of the statute of James, has not yet been decided."¹³⁵ It would be very difficult to say how much a substance or machine might be used by way of experiment before the patent is obtained, without running a great risk of invalidating the grant."

Here the doubt expressed is, how far the inventor may make experiments without invalidating his patent

¹³³ It had been before held by Mr. Justice Washington that an inventor did not lose his right to obtain a patent by lying by. *Evans v. Weiss*, 3 Hall's Law Journal, 130. So Mr. Justice Livingston, in a case in the Eastern district of New York, remarked, in a trial, that "if the patentee be the inventor, it is immaterial that the invention has been known and used for years before the application." *Goodyear v. Matthews*, 1 Paine's R. 301. He intends the case of course of its being used by the patentee himself and known to others, or if used by others, that it was so used without the inventor's consent, except by way of experiment and trial. But I cannot but doubt these cases. See Phil. on Pat. p. 183, 184, 185, and remarks of Story J. in *Pennock and Sellers v. Dialogue*, 2 Pet. S. C. R. 1, and the case of *Morris v. Huntington*, 1 Paine's R. 345.

¹³⁴ Phil. Treatise on the Law of Patents, p. 64.

¹³⁵ See *Hill v. Thompson*, 2 B. Moore, 457.

by the very act of making the experiments, though no one else should use the machine. The other and greater hazard he would run in England would be the loss of his right by piracy, since a piratical use of the machine would there defeat his patent no less than one authorized by himself.

In the United States, the jurisprudence in this respect is well settled on different principles, much more favorable to the interests of the inventor, and much more in accordance with the spirit of the patent laws. In a case in the Circuit Court of the United States, before Mr. Justice Thompson,¹³⁶ he said, "No man is permitted to lie by for years and then take out a patent. If he has been practising his invention with a view of improving it, and thereby rendering it a greater benefit to the public, before taking out his patent, that ought not to prejudice him. But it should always be a question submitted to the jury, what was the intent of the delay of the patent, and whether allowing the invention to be used without a patent should not be considered as an abandonment or present of it to the public." The doctrine here laid down as to the experiments, and the use of the invention for the purpose of perfecting it, is assumed and taken for

¹³⁶ *Morris v. Huntington*, 1 Paine's R. 345.

granted, as if a formal statement of it were superfluous, in the opinion of the whole Supreme Court, delivered by Mr. Justice Story.¹²⁷

The 15th section of the act of Congress of 1836, c. 357, seems to settle this point, and distinctly recognise the right of the inventor to take time to adapt and perfect his invention.

We next consider how far an acquiescence of the inventor in, or his connivance at, the use of the invention by others, before taking out his patent, will affect its validity? And here we are again considering a question that belongs to the American and not to the English jurisprudence; for in the latter, as we have seen, the piracy of an invention and the use of it by others, without the consent or acquiescence of the inventor, and in spite of his vigilance to prevent it, is held to defeat the patent right; much more should this result be held to follow the use of it by others with his knowledge and consent. And on this subject there is no doubt, according to our law, that if the inventor allows and encourages others to use his invention without interposing or asserting his claim to an exclusive privilege, or if he authorizes such use of it in a way inconsistent with his claim to such privilege,

¹²⁷ *Pennock & Sellers v. Dialogue*, 2 Pet. S. C. R. 1.

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he thereby dedicates it to the public and forfeits his right to take out a patent. This doctrine is founded upon the plainest principles of common honesty, for it would be inconsistent with the obvious rules of fair dealing that the inventor should either tacitly or expressly authorize others to erect machines and put them into operation, and then, by obtaining a patent, defeat their labors and render their property of no value.

The plainest case of this description, and one on which all the decisions are agreed, is that of a sale by the inventor, of the articles which are the subjects of his invention. It has been uniformly held that if the inventor, before applying for a patent, manufactures and sells the articles to which his invention relates, he thereby loses his right to a patent. So it has been held in England.¹³⁸

In the jurisprudence of the United States, though the inventor is much more liberally treated than in that of England, still it has been distinctly held that a sale of the article before the grant of the patent, will render it void.¹³⁹ This question was very much discussed in the case of *Pennock & Sellers v. Dia-*

¹³⁸ 1 Holt, 11. P. C. 58.

¹³⁹ *Mellus v. Silsbee*, 4 Mason, R. 108.

logue, first in the Circuit Court of the United States for the District of Pennsylvania, and afterwards in the Supreme Court of the United States.¹⁴⁰ The invention in question was that of an improvement in hose-pipe in the mode of riveting the joints. The inventors had manufactured the article and authorized others to manufacture it for seven years before the grant of the patent; and thirteen thousand feet of the article had been made and sold before the patent was taken out. It was held clearly, both in the Circuit and the Supreme Court, that the patent was void. Mr. Justice Washington, in charging the jury in the Circuit Court, said, "We are clearly of opinion that if an inventor makes his discovery public, looks on and permits others freely to use it without objection, or assertion of claim to the invention, of which the public might take notice, he abandons his inchoate right to the exclusive use of the invention, to which a patent would have entitled him, had it been applied for before such use. And we think it makes no difference in the principle, that the article so used and afterwards patented, was made by a particular individual, who did so by the private permission of the inventor. As long as an inventor keeps to himself

¹⁴⁰ 2 Pet. S. C. R. 1.

the subject of his discovery, the public cannot be injured; and even if it be made public, but accompanied by an assertion of the inventor's claim to the discovery, those who should make use of the subject of the invention, would at least be put upon their guard. But if the public, with the knowledge and consent of the inventor, is permitted to use the invention without opposition, it is a fraud upon the public afterwards to take out a patent."

Mr. Justice Story, giving the opinion of the Supreme Court in the same case, said, "It has not been, and indeed cannot be denied, that an inventor may abandon his invention, and surrender or dedicate it to the public. This inchoate right, thus once gone, cannot afterwards be resumed at his pleasure, for when gifts are once made to the public in this way, they become absolute. The question which generally arises at trials, is a question of fact, rather than of law—whether the acts or acquiescence of the party furnish, in the given case, satisfactory proof of an abandonment or dedication of the invention to the public."

The act of Congress of July 4th, 1836, c. 357, s. 15, settles this point by providing as one ground of defence in an action for an infringement, that the "invention had been in public use or on sale with the consent and allowance of the patentee before *his*

application for a patent." This clause, it is to be observed, points to the time not of the *grant* of the patent, but to that of the *application* for one. If before making application for a patent, the inventor consent to, and allow of, the sale or public use of the invention, he thereby loses his right to take out a patent.

The public use of the invention with the consent or allowance of the inventor is, by the provision just quoted, put upon the same ground as a sale by him. This raises the question, What is a public use? And on this question some discussion was had before passing the act of July 4th, 1836, and the law is the same on this subject since as before the passage of that act.

The law on this subject is very explicitly laid down by Mr. Justice Story, in two cases that came before him in the Circuit Court of the United States in the district of Massachusetts.

In an action for the violation of a patent for a machine for making cotton and wool cards, it was contended that the patent should have been for an improvement of such machinery only. Story J. said, "That it would not protect the plaintiff's patent, that he was the inventor of all the material improvements in the old machine, (as is asserted) if he suf-

ferred them to be used freely and fully by the public at large for so many years, combined with all the usual machinery ; for in such a case I think he must be deemed to have made a gift of them to the public, as much as a person who voluntarily opens his land as a highway, and suffers it to remain for a length of time devoted to public use."¹⁴¹

In the other case the same judge said, " If the inventor dedicates his invention to the public, he cannot afterwards resume it, or claim an exclusive right in it. It is like the dedication of a public way or other public easement. The question in such cases is a question of fact—Has he so dedicated it? I agree his acts are to be construed liberally ; that he is not to be estopped by licensing a few persons to use his invention to ascertain its utility, or by any acts of such peculiar indulgence and use, as may fairly consist with the clear intention to hold the exclusive privilege. But if the inventor proclaims his invention to all the world, and suffers it to go into general and public use without objection ; if he asserts no exclusive right for years, with a full knowledge, that the public are led by it to a general use, such conduct amounts to strong proof, that he waives the exclusive right and dedicates the

¹⁴¹ *Whitemore v. Cutter*, 1 Gallison, 482.

invention to the world. After such conduct, the attempt to regain the exclusive right and secure it by a patent, would operate as a fraud upon the public; and would hold out inducements to incur heavy expenses in putting inventions into operation, of which the party might be deprived at the mere will or caprice of the inventor."¹⁴³

Mr. Justice M'Lean, giving the opinion of the Supreme Court of the United States upon this subject, said, "Vigilance is necessary to entitle an individual to the privilege secured under the patent law. It is not enough that he should show his right by invention, but he must secure it in a mode required by law. And if the invention, through fraudulent means, shall be made known to the public, he should assert his right immediately, and take the necessary steps to legalize it. The patent law was designed for the public benefit, as well as for the benefit of inventors. For a valuable invention, the public, on his complying with certain conditions, give him, for a limited period, the profits arising on the sale of the thing invented. This holds out an inducement for the exercise of genius and skill in making discoveries which may be useful to society, and profitable to the discoverer.

¹⁴³ *Mellus v. Silsbee*, 4 Mason, 108.

But it was not the intention of this law to take from the public that of which they were fairly in possession. In the progress of society, the range of discoveries in the mechanic arts, in science, and in all things which promote the public convenience, as a matter of course, will be enlarged. This results from the aggregation of mind, and the diversity of talents and pursuits, which exist in every intelligent community. And it would be extremely impolitic to retard or embarrass this advance, by withdrawing from the public any useful invention or art, and making it a subject of private monopoly. Against this consequence, the legislature have carefully guarded, in the laws they have passed on the subject. It is, undoubtedly, just that every discoverer should realize the benefits resulting from his discovery, for the period contemplated by law. But these can only be secured by a substantial compliance with every legal requisite. His legal right does not rest alone upon his discovery ; but also upon the legal sanctions which have been given to it, and the forms of law with which it has been clothed. No matter by what means an invention may have been communicated to the public before a patent is obtained ; any acquiescence in the public use, by the inventor, will be an abandonment of his right. If the right were asserted by him who fraudulently obtained it,

perhaps no lapse of time could give it validity. But the public stand in an entirely different relation to the inventor. The invention passes into the possession of innocent persons, who have no knowledge of the fraud, and at a considerable expense, perhaps, they appropriate it to their own use. The inventor or his agent has full knowledge of these facts, but fails to assert his right; shall he afterwards be permitted to assert it with effect? Is not this such evidence of acquiescence in the public use, on his part, as justly forfeits his right? If an individual witness the sale and transfer of real estate, under certain circumstances, in which he has an equitable lien or interest, and does not make known this interest, he shall not afterwards be permitted to assert it. On this principle it is, that a discoverer abandons his right, if, before the obtainment of his patent, his discovery goes into public use. His right would be secured by giving public notice that he was the inventor of the thing used, and that he should apply for a patent. Does this impose any thing more than reasonable diligence on the inventor? And would any thing short of this be just to the public? The acquiescence of the inventor in the public use can, in no case, be presumed, when he has no knowledge of such use. But this knowledge may be presumed from the circumstances of the case. This will,

in general, be a fact for the jury. And if the inventor do not, immediately after this notice, assert his right, it is such evidence of acquiescence in the public use, as for ever afterwards to prevent him from asserting it. After his right shall be perfected by a patent, no presumption arises against it from a subsequent use by the public. When an inventor applies to the Department of State for a patent, he should state the facts truly ; and indeed he is required to do so under the solemn obligations of an oath. If his invention has been carried into public use by fraud ; but for a series of months or years he has taken no steps to assert his right, would not this afford such evidence of acquiescence as to defeat his application as effectually as if he failed to state that he was the original inventor ? And the same evidence which should defeat his application for a patent, would, at any subsequent period, be fatal to his right. The evidence he exhibits to the Department of State is not only *ex parte*, but interested ; and the questions of fact are left open to be controverted by any one, who shall think proper to contest the right under the patent. The strict construction of the act, as it regards the public use of an invention, before it is patented, is not only required by its letter and spirit, but also by sound policy. A term of fourteen years was deemed sufficient for the enjoy-

ment of an exclusive right of an invention by the inventor, but if he may delay an application for his patent, at pleasure, although his invention be carried into public use, he may extend the period beyond what the law intended to give him. A pretence of fraud would afford no adequate security to the public in this respect, as artifice might be used to cover the transaction. The doctrine of presumed acquiescence, where the public use is known, or might be known to the inventor, is the only safe rule which can be adopted on this subject. Some of the decisions of the Circuit Courts were overruled in the cases of *Pennock & Sellers v. Dialogue*. They made the question of abandonment to turn upon the intention of the inventor. But such is not considered to be the true ground. Whatever may be the intention of the inventor, if he suffers his invention to go into public use, through any means whatsoever, without an immediate assertion of his right, he is not entitled to a patent, nor will a patent, obtained under such circumstances, protect his right."¹⁴³

The facts of the case to which the above doctrines were applied, were as follows. Shaw, the patentee came to this country in 1817, from England, and being

¹⁴³ *Shaw v. Cooper*, 7 Pet. S. C. R. 292.

an alien, he could not, at that time, take out a patent for his invention (which was that of the percussion gun-lock) within two years, that is, until 1819. He did not take his patent out until 1822. His invention had, in the mean time, been sold in England, in 1819, by his brother, to whom he had entrusted the secret, and was in public use there the two following years; and during the latter of those years also in France. Though it was alleged that during this time he was delaying for the purpose of making some improvement in his lock, yet it did not appear that he had made any material alteration in it. He had taken no steps during this time to assert his right, and he could not satisfactorily account for this delay. It was considered, therefore, that he had forfeited his right.

A patent once granted is not forfeited in the United States by the neglect of the patentee to put his invention into practical operation. Our law agrees with the English in this respect, but differs from those of France¹⁴⁴ and the Netherlands,¹⁴⁵ by which the invention must be put into operation within two years or the patent is forfeited, and also from those of Spain¹⁴⁶ and Austria,¹⁴⁷ by which it must be put into oper-

¹⁴⁴ Law of Jan. 17, 1791, a. 16.

¹⁴⁵ Law of January 25, 1817.

¹⁴⁶ Law of March 27th, 1826.

¹⁴⁷ Decree of Dec. 8th, 1820, c. 4, s. 23.

ation within one year under the same condition of forfeiture. The French law, however, makes an exception of cases where a longer delay is satisfactorily accounted for, and every law containing such a limitation of the time for putting the invention into use ought to have some provision for extending the time, since some inventions, requiring extensive preparations and large outlay, cannot be brought into operation in two or three years. In the United States, Mr. Justice Washington distinctly lays down the doctrine that no neglect of the patentee, to put his invention into practical operation, will be construed to be an abandonment of his patent right.¹⁴⁸ And such is the language of all the cases.¹⁴⁹ Our law appears to go upon the presumption that the public benefit may in this case be left wholly to the influence of the interest of the patentee; and confides to him the absolute control and disposal of his invention for the period of his monopoly.

There may be instances of inventions, the use of

¹⁴⁸ *Gray & Osgood v. James*, 1 Pet. C. C. R. 403.

¹⁴⁹ *Whittemore v. Cutter*, 1 Gallison's R. 478; *Thompson v. Haight*, U. S. Law Journal, Vol. 1, p. 563; *Morris v. Huntington*, 1 Paine's R. 345; *Pennock & Sellers v. Dialogue*, 2 Pet. S. C. R. 1; *Wood v. Brimmer*, 1 Holt. N. P. C. 58; *Kent's Com.* Vol. 2. p. 369.

which are vitally material to the public safety, as in such a case as Mr. Cochran's improvement in fire arms, just as in some case the appropriation of individual property to the public use is essential to the public defence. In the latter case the general safety is not subjected to the caprice or inordinate cupidity of the proprietor, for his property may be taken for the public use without his consent, and a reasonable compensation allowed. And such would be the rule, probably, in regard to the use of a patent right, which is no more sacred than other personal property. This provision of law is limited to the case of the use of property by the public as a corporate political body, and does not reach the case of an indirect benefit derived to the public by the use of a thing by individuals. In this respect the law leaves patent rights upon the same footing as other personal property, the proprietor of which may, by his own caprice or folly, deprive the public and himself of the benefit that would result from a reasonable use of it, and there does not seem to be any pressing urgency for a different rule in regard to different species of property. There is, it is true, no absolute insurmountable objection to a regulation on this subject in relation to patents, for the public may grant patents or lands upon such conditions as may be deemed expedient, and for the general

benefit ; but as a general rule, unless the case is plain and urgent, it is the better policy to leave private rights to the discretion and interest of proprietors, where their interest evidently coincides with that of the public, since the inconveniences attendant upon an attempt by law to supply their want of reasonable discretion, would, in a majority of cases, be greater than those consequent upon their abuse of the discretion and control allowed by the law.

CHAPTER VIII.

Appeal to Board of Examiners. Interfering Applications. Previous Foreign Patent by the Applicant. Secret Filing of the Specification. Caveat.

By the 7th section of the act of Congress of 1836, it is provided that whenever, on examination, it shall appear to the Commissioner of Patents that the applicant for a patent, for an invention, "was not the original and first discoverer thereof, or that a part of that which is claimed as new had before been invented or discovered, or patented, or described in any

printed publication in this or any foreign country, or that the description is defective and insufficient, he shall notify the applicant thereof, giving him, briefly, such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of his invention which is new." The applicant may thereupon withdraw his application, and receive back twenty dollars of the thirty dollars paid into the treasury by him, and leave his model in the patent office. But if he persist in his claim, whether he chooses to alter the specification or not, he must again make the usual oath, and if the commissioner still refuses to grant the patent, he may appeal to a board of examiners, consisting of three persons appointed by the Secretary of State, "one of whom, at least, to be selected, if practicable and convenient, for his knowledge and skill in the art, manufacture or branch of science to which the alleged invention appertains." The commissioner is to furnish this board with his objections to the application in writing. The applicant is to be heard by the board, which may, if a majority sees fit, reverse the decision of the commissioner in whole or in part, and their opinion being certified to the commissioner, he is to be governed by it as to any further proceedings to be had on the application.

The applicant is to pay twenty-five dollars towards the expenses, the examiners being entitled to receive not over ten dollars each.

By the 8th section of the same law, it is no objection to an application that the applicant has taken out foreign letters patent, and that they have been published within six months preceding his application.

By the same section, on the request of the applicant, his specification and drawings may be filed secretly in the office not longer than one year, and on the model being furnished, the patent may issue, dated back at the time of the specification, not exceeding, however, six months. He is, in such case, entitled to notice of any interfering application for a patent.

It is provided, by the same section, that interfering applications, or an application supposed by the commissioner to interfere with any subsisting patent, may be referred to a board of examiners appointed as above.

It is provided by the 12th section of this law, that any citizen of the United States, or alien who shall have been resident in the United States one year next preceding, and who shall have made oath of his intention to become a citizen thereof, who shall have invented

any new art, machine or improvement thereof, and shall desire further time to mature the same, may file in the patent office a caveat, setting forth the design and purpose thereof, and its distinguishing characteristics, and praying protection of his right, till he shall have matured his invention. And such caveat shall be filed in the confidential archives of the office and preserved in secrecy. And if application shall be made by any other person within one year from the time of filing such caveat, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the commissioner to deposit the descriptions, specifications, drawings and model, in the confidential archives of the office, and to give notice by mail to the person filing the caveat, of such application, who shall, within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specifications, drawings and model; and if in the opinion of the commissioner, the specifications of claim interfere with each other, like proceedings may be had as in case of interfering applications.

CHAPTER IX.

Divers Patents for the same Invention. The joining of divers Inventions in the same Patent. Patent for a part of an Invention.

- Sec. 1.** *Divers valid Patents cannot be taken out for the same thing.*
2. *Patent for a Combination, and for the separate Things combined.*
 3. *Distinct Inventions cannot be joined in the same Patent.*
 4. *Patent for a part of a Machine.*

Sec. I.—DIVERS VALID PATENTS CANNOT BE TAKEN OUT FOR THE SAME THING.

It is a well settled doctrine, that divers valid patents cannot be taken out for the same invention, whether by the same or by different patentees.

That different patentees cannot take independent valid patents for the same thing, follows from what has already been said on the subject of patents, in a preceding chapter, where it is stated that the invention must be new and original, and prior to any other

invention of the same thing, in order to be the subject of a valid patent, which necessarily excludes the possibility of two valid patents for the same thing. It is also inconsistent with the character of a patent as an exclusive privilege.¹

The same person cannot, at the same time, be the joint and separate patentee of the same thing. "A joint patent for an invention," says Mr. Justice Story, "is utterly inconsistent with several patents for the same invention by the same patentees."²

Sec. II.—PATENT FOR A COMBINATION, AND FOR THE
SEPARATE THINGS COMBINED.

But an invention of a combination, and that of a part or the whole of the things combined, may be joined in the same patent.³ The reason is that, though they are separate inventions combined in one thing, and may therefore be joined in the same patent without violating the rule about to be stated on the joining of different inventions in one patent, yet the taking of a patent for the combination, after taking one

¹ Barrett v. Hall, 1 Mason's R. 473.

² Barrett v. Hall, 1 Mason, 473.

³ Per Story J., Moody v. Fiske, 2 Mason, 112.

for the separate parts, is not a double patent, or, in other words, is not the patenting, under the claim of the combination, the same thing which had before been claimed under the separate parts; for a machine may be the combination of a number of others, each of which, when invented, might have been the subject of a patent, and yet the combination of them might also, when first made, be the subject of a patent, and accordingly, if both the parts, or some of them and the combination, be invented by the same person, he may specify these distinctly in the same patent, or, if he invent them at different times, he may make the parts the subject of one or more patents, and then take a patent for the combination.

**Sec. III.—DISTINCT INVENTIONS CANNOT BE JOINED
IN THE SAME PATENT.**

The doctrine is equally clear that different, distinct and independent inventions cannot be joined in the same patent. Mr. Chief Justice Marshall says, in giving the opinion of the court, "Under the general patent law alone, a doubt may well arise, whether improvements on different machines could regularly be comprehended in the same patent, so as to give a right to the exclusive use of the several machines

separately, as well as a right to the exclusive use of those machines in combination."⁴ So Mr. Justice Story says, "Though several distinct improvements in one machine may be united in one patent, it does not follow that several improvements in two different machines, having distinct and independent operations, can be so included. Much less that the same patent may be for a *combination* of different machines, and for distinct improvements in each."⁵ And in another case the same judge says, that "a patent under the general patent act, cannot embrace various distinct improvements or inventions; but in such case the party must take out separate patents. If the patentee has invented certain improved machines, which are capable of a distinct operation, and also has invented a combination of those machines to produce a connected result, the same patent cannot at once be for the combination and for each of the improved machines; for the inventions are as distinct, as if the subject were entirely different."⁶ So Mr. Justice Wilde, of the Supreme Court of Massachusetts, was of opinion, where a joint patent for a reel and lap-frame was granted to two persons, that as these were distinct and

⁴ *Evans v. Eaton*, 3 Wheaton, 454.

⁵ *Moody v. Fiske*, 2 Mason, 112.

⁶ *Barrett v. Hall*, 1 Mason, 475.

separate inventions and machines, the joint patent was for that reason void ; but that the parties might procure its repeal and obtain separate patents for each machine.⁷

In regard to the case put by Mr. Justice Story, of joining the invention of an improvement of one machine in the same patent with an invention of a combination of the machine, so improved with others, I cannot but think they may be joined, where the improvement in the separate machine, and the combination, have the same object ; for, suppose the combination to be of two machines, one of which is improved ; the improvement is one addition, or modification, and the combining it with the other, is a second modification or addition. The case cannot easily be distinguished from divers improvements of the same machine, and that such divers improvements may be joined in one patent, there seems to be no ground to doubt.

A case decided in the English Court of King's Bench, presents a combination of things in the same patent, of very considerable diversity, though all the different things were used in connexion, viz. an improvement in ships' anchors, cables, and windlasses.⁸

⁷ *Stearns v. Barrett*, 1 Pick. 448.

⁸ See *Hill v. Thompson*, 2 J. B. Moore, 424.

The objection was not made to this patent that it embraced distinct subjects of patents, so that on this point the case has only the feeble authority arising from the fact that the counsel did not raise the objection, and that the court did not, of its own motion, notice it.

Sec. IV.—PATENT FOR A PART OF A MACHINE.

We next consider whether a patent may be taken out for a part of a machine. A patent for an improvement is usually for a part of an entire thing, and often at least, if not most frequently, for something that cannot be used separately to any practical purpose. It is not necessary, then, that the subject of the patent or exclusive right should be capable of an independent separate use. But suppose the case of two persons, independently of each other, inventing the parts of a new machine, are they entitled to separate patents? Mr. Justice Story says, "if two persons invent several parts of a machine *capable of a distinct use*, then those parts might be considered as separate inventions, for which such inventor might perhaps be entitled to a separate patent."⁹

⁹ *Stearns v. Barrett*, 1 Mason, 153

This qualification that the inventions should be capable of a separate use, seems to present a pretty clear case of a right to separate patents. But if the parts belong essentially together, and are useless when separate, this is a plain case of joint invention ; though the inventors may have had no communication with each other ; and so a case in which separate patents cannot be taken out. Neither inventor could reduce his invention to use independently of the other, and as we have seen, the inventor must, in order to entitle himself to a patent, reduce his invention to use.

CHAPTER X.

Title of the Patent. Form. Difference in Form between English and American Patents. Construction of Patents.

WE come now to the inquiry, what steps and forms are necessary in order to secure the exclusive privilege granted by the patent acts. The principal subjects to be considered in this connexion, are the specification, the drawings, models, and specimens, the

oath of the inventor, the petition, the payment of the tax or fee, the reference to arbitration in case of interfering claims, the letter patent. It is proposed to notice here the different modes of granting patents in England and the United States, and as consequent upon this difference, a diversity in the rules of construction of patents. Unless this diversity is first noticed and kept in view, there will be some confusion and obscurity between the English and American cases on the subject of the specification.

The form of American patents was prescribed by the act of Congress of 1793, s. 1, which provided, among other things, that on a petition for the purpose, the secretary might cause letters patent to be granted, "reciting the allegations and suggestions of the said petition." Mr. Justice Washington ruled that a compliance with this requisition was material. In an action for an infringement of Evans's patent for the Hopperboy, it was objected that the patent did not recite the allegations and suggestions of the petition. Washington J. "If the allegations and suggestions of the petition are substantially recited, it will be sufficient. But in this case they are not." He said the patent gave no description of the hopperboy and its use, and the manner in which it worked. The petition gave a minute and full description of it, which

ought to have been substantially recited.¹ The English law contains no similar express provision, but the practice is to recite the allegations of the petition, and the provision of the American statute in this respect, was, no doubt, borrowed from the English practice. The act of congress of July 4th, 1826, c. 357, s. 5, prescribes the form of the patent, omitting the provision that it shall recite the allegations and suggestions of the petition, and providing instead that it shall contain "a short description or title of the invention, correctly indicating its nature and design, referring to the specification for the particulars thereof," so that the above decision is not applicable to patents granted under this act.

In England the patent is granted before the specification is made, a certain time being allowed by the patent for enrolling the specification, varying from two to six months or longer, according to the circumstances, it being left to the discretion of the executive officers to fix the time. Though in one case in England Mr. Justice Grose is reported to have said, that the specification was fairly to be considered a part of the patent itself,² the cases are entirely otherwise, and

¹ *Evans v. Chambers*, 2 Wash. C. C. R. 125.

² 8 T. R. 106.

it is well settled there that the patent is distinct from the specification, and controls it in construction, and that the patentee cannot cover any thing by the specification which is not covered by the patent, or draw from the specification any construction whereby to comprehend in the patent any thing which would not be comprehended without recurrence to the specification.³

In the United States, the doctrine is different on this subject, the specification being always drawn up before the patent is granted, and being referred to in the patent. It is well settled in our courts that it is a part of the patent, in the prescribed form of which, under the act of 1836 and in the usual form under that of 1793, the specification is annexed, and expressly referred to as "a part of these presents." Accordingly Mr. Justice Story says, "Under the patent laws of the United States, the specification forms a part of the patent, and may control the generality of its terms; in England the specification is separate from it."⁴

³ *Campion v. Benyon*, 3 Brod. & Bing. 5. *The King v. Wheeler*, 2 B. & Ald. 345; *Bainbridge v. Wigley*, Rep. of Arts, Sec. Ser. Vol. 27, p. 127; *Rex v. Metcalf*, 2 Stark. N. P. C. 249; *Cochrane v. Smethurst*, 1 Stark. N. P. C. 205.

⁴ *Barrett v. Hall*, 1 Mason, 477; *Whittemore v. Cutter*, 1 Gallison's R. 437.

Both in English and American patents a title is necessarily given to the invention, whereby it is patented. The American patent act of 1793, s. 1, provided, that, on a petition for the purpose, the secretary of state might cause letters patent to be granted, "giving a short description of said invention or discovery." The act of 1836, s. 5, varies a little from that of 1793, as above stated.⁵ This short description or title is usually in the words of the patentee, either prefixed to his specification, or being the introductory part of it. In American patents any defect in this title might, under the act of 1793, be remedied by the specification; how far it may be so under that of 1836 remains to be decided. The accuracy in the title required by the English law, renders the choice of titles matter of the greatest difficulty, since, if the title is too narrow, the patentee either fails of securing the exclusive privilege entirely, or, at least, to the extent to which he is entitled to it, and if it is too broad, the patent is void by reason of its covering too much. Many English patents have been defeated on this ground. The difficulty has been partly overcome by the allowing of great generality and indefiniteness in the description.

⁵ *Supra* p. 230.

“Such,” says Mr. Godson, “is the technical use that has for a long time been made of the word *method* in patents, that it is quite common for inventors to ask for a patent for a method of doing something, and then to set forth a description of some new substance or machine. It is a convenient way to avoid giving a title to the invention. And therefore it is now clearly established, that if the patentee claim a method, and yet in the specification describe some tangible matter, the grant is valid. In other words, though the patent is for something called a method, yet the real subject of the grant is either a substance, machine, improvement, or combination.”⁶

Thus Watt’s patent for his improvement in the steam engine was for “a method of lessening the consumption of steam and fuel in steam engines,” a description which would cover a large part of the improvements in steam engines and boilers invented from Watt’s day to the present, and yet it was held to be a sufficient description and a valid patent, after much doubt and discussion,⁷ and the case has been a leading one on the subject to the present time.

Bainbridge’s patent, granted in 1807, for an improve-

⁶ Godson on Patents, 88.

⁷ Boulton v. Bull, 2 H. Bl. 463.

ment in the flageolet or English flute, by the addition of *notes*, in the plural, whereas only a *note* was added, was held to be void on account of the inaccuracy of this description in the title.⁸

So Lord Cochrane's patent for "a method or methods of more completely lighting cities, towns and villages," which consisted in an improved lamp, was held to be void on account of the generality of the title.⁹

So Metcalf's patent for "tapering brushes," was adjudged by Lord Ellenborough to be void on account of the inaccuracy of this description. It appeared, from the specification, that the improvement consisted in making the bristles of unequal length instead of their being of the same length, as they had been in former brushes. A tuft of such bristles compressed in the hand or between the fingers, would be in some sort tapering. The specification made it plain enough what was meant by *tapering*. But Lord Ellenborough ruled that the description in the patent was defective, and that the "difficulty arising from the

⁸ *Bainbridge v. Wigley*, K. B. 1810. Rep. of Arts, Second Series, Vol. 18, p. 127.

⁹ *Cochrane v. Smethurst*, 1 Stark. 205; S. C. Rep. of Arts, Second Series, Vol. 27, p. 192; S. C. Gods. Pat. 104, n.

grammatical consideration," could not be removed.¹⁰

So Wheeler's patent for "a new and improved method of drying and preparing malt," which consisted in a preparation of barley for the purpose of coloring beer, was held to be void on account of the supposed inaccuracy, in calling it *malt*.¹¹

Now in every one of these cases, if, as in American patents, the specification could have been resorted to for a construction of the title, the objections, on which the patents were declared void, would have disappeared.

It is a general rule in construing written instruments, that other documents referred to in them must be taken into consideration. Thus the drawings annexed to a specification in compliance with the statute, are considered to be a part of the specification, and so to be taken into consideration, in putting a construction upon it.¹²

The English cases furnish some examples of another rule of construction common to specifications

¹⁰ *Rex v. Metcalf*, 2 Stark. N. P. C. 249.

¹¹ *The King v. Wheeler*, 2 Barn. & Ald. 345.

¹² *Earle v. Sawyer*, 4 Mason's R. 9. In this case, Mr. Justice Story considers Lord Eldon's remarks on drawings or *pictures* as he calls them, in *Fox ex parte*, 1 Ves. and B. 67, to be in accordance with the above rule of construction.

and other writings, namely, that where definite and specific, and also very general descriptive terms are used in reference to the same subject matter, the meaning of the latter may be modified and restrained by the former. This is illustrated in the case of a patent for "an apparatus for extracting inflammable gas by heat, from pit-coal, tar, or *any other substance*, from which gas or gasses, capable of being employed for illumination, can be extracted by heat." It was proved that the apparatus would not succeed in making gas from oil, and it was objected to the patent that there was nothing to prevent a person, who saw the specification, from considering that it was meant to be included, and so that the specification covered more ground than the invention, and was not true, and that accordingly the patent was void. But Lord Tenterden ruled that the phrase "*any other substance*" must be construed to be applicable to substances of the same sort, (*ejusdem generis*), with those enumerated, and so that the description was sufficiently accurate, and the patent valid.

A mistake in the use of one word for another, so as either to pervert the sense, or make nonsense, may be rectified in the case of a patent as well as in other written instruments, by other parts of the document. Thus, where the word *painting* was used by mistake

in the patent for the word *printing*, Mr. Justice Washington held that the error might be corrected by other parts of the patent and the specification.¹²

CHAPTER XI.

Specification.

Sec. 1. *Leading Objects in the Specification. Distinction between English and American Patents as to the Specification.*

2. *General Requisites.*

3. *Known Processes, Methods and Machinery need not be described. Surplusage.*

4. *The Specification is addressed to Artists. Technical Terms.*

5. *Must be true and not mislead.*

6. *Must be full, clear, and exact.*

7. *What is claimed as new must be distinguished from what is old. The Patentee must not claim too much.*

8. *The Specification must direct how to make, and describe the best way known to the Inventor of making the article.*

¹² *Kneass v. Schuylkill Bank*, C. C. U. S. Penn. Oct. 1820, Coxe's Dig. 532.

9. *Reference in the Specification to Drawings.*
10. *The consequence of a defect in the Specification.*

SEC. I.—LEADING OBJECTS IN THE SPECIFICATION.

**DISTINCTION BETWEEN ENGLISH AND AMERICAN
PATENTS AS TO THE SPECIFICATION.**

THE specification is no less important than the invention itself, and the instances of patents being declared void by the courts on account of the defects of the specification, are probably quite as many as those of failure from the insufficiency of the invention.¹ It requires no little skill and knowledge of the subject of the invention, to draw up an adequate and apt specification. And skill and knowledge of the subject will not suffice for this purpose, without also a knowledge of the law of patents generally.

The frequent failure of patents in consequence of defects in the specification through inadvertency, has heretofore been a subject of loud complaint, both in England and the United States, until the legislatures of both countries, that of the United States in 1832, and again in 1836, and that of Great Britain in 1835, passed laws to remedy this evil.

¹ The statement of Benjamin Rotch, Esq., Rep. of Com. of Brit. H. of Com. 1829, p. 108.

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The patentee may, by availing himself of the remedy thus provided, avoid the absolute loss of his monopoly, on account of those defects in the specification which were before the frequent occasion of its forfeiture. In treating of the specification, the cases and the law will be stated just as if those provisions had not been made, the reader being apprized that for some of the defects, on account of which the patent right would otherwise be defeated, those provisions afford a partial remedy, that is, the patentee does not absolutely lose his privilege, provided he takes advantage of the provisions thus made in his favor.

There are two objects in view in making a specification. As the law grants the patentee a monopoly, and not only awards damages, but provides for a penalty for a violation of the exclusive privilege, it very equitably requires that the invention shall be so described in the specification, that every person may, by examining it, know what the patentee claims, and be able to distinguish what may be an infringement. The other object of the specification is to give the public the advantage of the invention after the expiration of the patent. The consideration of the patent being the advantage to be derived to the public after its expiration, it is necessary, in order that this advantage may be realized, that the invention shall so be

described in the specification, that one acquainted with the art or manufacture, to which it relates, or with which it is most nearly connected, may not only understand the invention, but be able, by following the directions given in the specification, with the assistance of the drawings, to construct the machine or perform the process which is the subject of the patent.² These two objects of the specification are the foundation of the rules and decisions in regard to it.

SEC. II.—GENERAL REQUISITES OF THE SPECIFICATION.

The general requisites of a specification were given in the patent act of 1793, s. 3, which is very nearly followed by section 6 of that of 1836, by which it is provided that "every inventor, before he can receive a patent, shall deliver a written description of his invention, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding all unnecessary prolixity, as to distinguish it from all other things before known, and to enable any person, skilled in the art or science, to which it appertains or with which it

² *Evans v. Eaton*, 7 Wheat. 433.

is most nearly connected, to make, construct, compound, and use the same. And in case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions ; “ and shall particularly specify and point out the part, improvement or combination, which he claims as his own invention or discovery.”

Sec. III.—KNOWN PROCESSES, METHODS AND MACHINERY NEED NOT BE DESCRIBED. SURPLUSAGE

Though the specification must be *full*, it need not describe in detail, processes, methods, and machinery, that are well known and in ordinary use among those skilled in the art, science, or business to which the invention relates, or with which it is most nearly connected.³ A specification of an improved gas apparatus did not give any directions respecting a condenser. It was held that this did not invalidate the patent, it being well known to persons capable of constructing a gas apparatus, that a condenser was an

³ *Kneass v. Schuylkill Bank*, C. C. U. S. Penn. Oct. 1820, Coxe's Dig. 532.

essential part of it.⁴ To introduce such descriptions may not merely be superfluous; it may have the effect of rendering the specification defective by involving the description of the invention with a multitude of immaterial details, whereby it might be rendered obscure, and perplex those who should attempt to learn from it what the patentee claimed, that they might avoid an infringement, or who should resort to it after the expiration of the monopoly, to learn how to make the article.

Where superfluous details and erroneous statements are apparently introduced for the purpose of throwing obscurity upon the invention, and disguising it, and evidently having that tendency, the patent will thereby be rendered void, as we shall see more particularly below.⁵

It may be necessary to give a partial description of a well known, or patented process or machine, in order to give a clear description of an improvement; any thing further than this will at best be immaterial and superfluous, if it does not vitiate the patent.⁶

⁴ *Crossley v. Beverly*, 3 Car. & Payne, 513. See also *The King v. Arkwright*, Dav. Pat. Cas. 185; *Hubbart v. Grimshaw*, Dav. Pat. Cas. 297; *Hill v. Thompson*, 2 J. B. Moore, 450.

⁵ Sec. 5. *Savory v. Price*, 1 R. & M. 1.

⁶ See below, Sec. 4, 2 H. Bl. 497.

Watt's specification was an instance where mere superfluity was held not to vitiate the patent ; for in addition to the description of his steam-engine, he intimated new projects of invention, concerning which, Eyre C. J. said, " If there be a specification to be found in that paper which goes to the subject of the invention as described in the patent, I think the rest may well be rejected as superfluous."⁷

Sec. IV.—THE SPECIFICATION IS ADDRESSED TO
ARTISTS. TECHNICAL TERMS.

The patentee is allowed, in his specification, to address himself only to persons of competent skill in the matter to which the patent relates.⁸ It is not necessary, that the specification should contain an explanation level with the capacity of every person, which often would be impossible.⁹ " Suppose," says Eyre C. J. " a new invented chemical process, and the specification should direct that some particular chemical substance should be poured upon gold in a

⁷ Boulton v. Bull, 2 H. Bl. 498.

⁸ Per. Abbott C. J. *The King v. Wheeler*, 2 Barnw. & Ald. 364 ; Per Lord Loughborough, *Arkwright v. Nightingale*, Dav. Pat. Cas. 56.

⁹ Per. Story, *Lowell v. Lewis*, 1 Mason, 182.

state of fusion, it would be necessary in order to this operation, that the gold should be put into a crucible, and should be melted in that crucible, but it would be hardly necessary to state, in the specification, the manner in which, or the utensils with which the operation of putting gold into a state of fusion was to be performed. They are mere incidents with which every man, acquainted with the subject, is familiar."¹⁰ Mr. Justice Washington, speaking of the provisions of the act of Congress of 1793, relating to specifications, remarks, that "the expressions are very strong, and seem intended to accommodate the description, which the patentee is required to give, to the comprehension of any practical mechanic; skilled in the art of which the machine is a branch, without taxing his genius or his inventive powers."¹¹ The provisions of the act of 1836, s. 6, are substantially the same on this subject as those of the former statute.

As the specification is addressed to artists acquainted with the subject of the patent, it is no ground of objection that it contains technical terms. It would be quite impracticable to give a description of many inventions without the use of such terms, and the de-

¹⁰ 2 H. Bl. 497.

¹¹ *Gray & Osgood v. James, and others*, 1 Pet. C. C. R. 376.

scription is often rendered much more clear by the use of them, even where others might, by circumlocution, be used instead of them. It was objected to a specification, in one case, that it contained French terms ; but this was considered by Abbott C. J. to be no ground of objection.¹²

Sec. V.—THE SPECIFICATION MUST BE TRUE, AND
MUST NOT MISLEAD.

That the specification must be true in all its material parts, cannot be doubted, for the wrong statement of what is material, will render the specification defective, either as a notice of what the invention is, or as a direction for practising it. If the patent and specification state an invention which has not been made by the patentee, the patent is no doubt void. "If," says Abbott C. J. "the patentee has not invented the matter or thing of which he represents himself to be the inventor, the consideration of the royal grant fails, and the grant consequently becomes void. And this will not be the less true, if it should happen, that the patentee has invented some other matter or thing,

¹² Bloxam v. Elsee, 1 Car. & P. 558.

of which, upon a due representation thereof, he might have been entitled to a grant of the exclusive use.”¹³

The case on Turner’s patent is an illustration of a defect from an erroneous statement of the process and result. In an action for an infringement of that patent, which was “for producing yellow color for painting in oil or water, and making white lead, and separating the mineral alkali from common salt, all by one process,” it was objected, that the white lead produced by following the directions in the specification, was not what was sold as such, but a white substance, the basis of which was lead, and which was applicable only to some of the uses of common white lead. Ashhurst J. “It is said that the patentee did not profess to make common white lead. But that is no answer; for if the patentee had intended to produce something only like white lead, or answering some of the purposes of common white lead, it should have been so expressed in the specification.” The patent was held to be void.¹⁴

In Watt’s patent and specification, his invention is represented to be one for lessening the consumption of fuel and steam in the use of steam engines; and Eyre C. J. thought that it was essential, under such a

¹³ King v. Wheeler, 2 Barn. & Ald. 349.

¹⁴ Turner v. Winter, 1 T. R. 602.

representation, that such should be the practical result of his invention.¹⁵

In the case on Bloxam's patent for a machine for making paper, the patent was held to be void, because the patentee represented that his machine would do what in fact could not be effected by it. It was recited in the letters patent that the patentee had represented to the king that he was in possession of a *machine* for making paper in single sheets without seam or joining, *from one to twelve feet and upwards wide*, and from one to forty-five feet and upwards in length. It also appeared by the specification, that the machine then invented was so constructed as to be capable of producing paper of one definite width only, and that in order to vary the width a new machine was required. By the subsequent improvements, however, one and the same machine became capable of producing paper of various widths. C. J. Abbot. "If any material part of the representation was not true, the consideration has failed in part, and the grant is consequently void, and a defendant, in an action for infringing the patent, has a right to say that it is so. Now I think it impossible to say that both width and length are not important parts of this representation.

¹⁵ Boulton v. Bull, 2 H. Bl. 498.

It may be that if the representation had mentioned length only, a patent would have been granted for the invention, which (in its improved state at least) is eminently useful, in a very important manufacture, as saving both time and labor in a very considerable degree. But although I may think this probable, I am not at liberty to pronounce judicially that it would have been so. I must therefore see whether the representation was true. It has been contended, in support of the patent, that the recital does not import that paper of different widths was to be made by one and the same machine, but may mean only that the width might be obtained by different machines, each adapted and constructed to the extent required. But I think this construction of the recital cannot be allowed; for it is a different thing whether a manufacturer must supply himself with several different machines, or with one only, capable alone of accomplishing all the purposes to be obtained by many. And if the width is not to be considered as material, the length cannot be so considered, and then the representation will only be, that he has invented machines, by the use of several of which, paper of various widths and lengths may be made without seam or joining. And this will be at variance with all the specifications, which plainly show that whatever was done, was to

be done by one and the same machine. Then if the representation be (as I think it is) that paper of various widths may be obtained by one and the same machine, I must look to the evidence to discover whether the patentee was possessed of a machine, or of the invention of a machine, capable of accomplishing this object. And unfortunately the evidence shows that he was not. I say unfortunately, because it is to be lamented, that the advantage of great ingenuity, labor, anxiety and expense, should be lost to those who have bestowed them. The patentee was at the time possessed of one machine, and one only, and this adapted to one degree of width, and one degree only. And he was not then possessed of any method by which different degrees of width might be manufactured by that machine or by any other."¹⁶

Where superfluous processes or machinery are described for the purpose of misleading the person consulting the specification, and preventing him from getting a knowledge of the process or machine patented, or of the best mode of using or making it, this will vitiate the patent. Thus a patent for a process for making Seidlitz powders was held to be void because the patentee, in his specification, gave three recipes for

¹⁶ *Bloxam v. Elsee*, 6 Barn. & Cress 169.

producing three different substances, of which he directed the mixture to produce the Seidlitz powder, without disclosing that these three substances were Rochelle salts, carbonate of soda, and tartaric acid. Abbott C. J. "It is the duty of any one, to whom a patent is granted, to point out, in his specification, the plainest and most easy way of producing that for which he claims a monopoly ; and to make the public acquainted with the mode which he himself adopts. If a person, on reading the specification, would be led to suppose a laborious process necessary to the production of any one of the ingredients, when, in fact, he might go to a chemist's shop and buy the same thing as a separate, simple part of the compound, the public are misled. If the results of the recipes, or any one of them, may be bought in the shops, this specification, tending to make people believe an elaborate process essential to the invention, cannot be supported."¹⁷

Arkwright's patent for cotton spinning machinery is another instance of a patent being void by the introduction of things into the specification which were

¹⁷ Savory v. Price, 1 Ryan & Moody, 1.

never used by the inventor, and which were introduced merely to mislead the public.¹⁸

The concealment in the specification of what is necessary to a knowledge of the machine, is fatal to the patent, no less than the introduction of facts intended to mislead.¹⁹



Sec. VI.—THE SPECIFICATION MUST BE FULL, CLEAR,
AND EXACT.

The specification must not only be true, it must also be full instead of being partial; clear, in distinction from its being obscure and ambiguous, and exact, in distinction from its being vague, loose, and indefinite. These requisites are, however, laid down by judges, in some instances, with too great strictness and severity. In some of the English cases, a jealousy of patent rights as an infringement of the rights of the community by the common law, has formerly led the judges to a very strict construction against patentees.

Thus in the case on Turner's patent, Mr. Justice

¹⁸ The King v. Arkwright, Dav. Pat. Cas. 129, 139, 140. See also *infra*, Sec. 8; Hill v. Thompson, 2 J. B. Moore, 448; Liardet v. Johnson, Bull. N. P. 76; 1 T. R. 608; Turner v. Winter, 1 T. R. 602.

¹⁹ Gray & Osgood v. James and others, 1 Pet. C. C. R. 196; Wood v. Zimmer, Holt's N. P. C. 58.

Ashhurst says, "as every patent is calculated to give a monopoly to the patentee, it is so far against the principles of law, and would be a reason against it, were it not for the advantages which the public derive from the communication of the invention after the expiration of the time for which the patent is granted. It is, therefore, incumbent on the patentee to give a specification of the invention in the *clearest and most unequivocal terms, of which the subject is capable*. And if it appear that there is any unnecessary ambiguity affectingly introduced into the specification, or any thing which tends to mislead the public, in that case the patent is void."²⁰

The doctrine on this subject is stated with less severity in a more recent case, in which it is said that every patent being a monopoly, that is, an infringement of public right, and having for its object, to give the public warning of the precise extent of the privilege conferred on the patentee, the court is bound to require that such warning should be *clear, and accurately* describe what the inventor claims as his own. If the instrument contain any *ambiguity on a material point*, that is a ground on which it may be avoided altogether.²¹

²⁰ Turner v. Winter, 1 T. R. 602.

²¹ Campion v. Benyon, 8 Brod. & Bingh. 5.

Mr. Justice Story says, upon this subject, that "it ought to appear with *reasonable* certainty, what the patentee claims, and that it should not be left to minute references and conjectures from what was previously known."²²

In another case the same judge remarks, that a general statement that the patented machine is in all material respects, (without stating what these are) an improvement on an old machine, is no specification at all.²³

Mr. Justice Washington also considered an ambiguous, unintelligible specification, as in effect, no specification at all.²⁴ And Mr. Justice Story, speaking of a specification of an improvement in a machine, says, "If the terms be so obscure or doubtful, that the court cannot say what is the particular improvement which the patentee claims, and to what it is limited, the patent is void for ambiguity."²⁵

In a more recent case, the same judge lays down the law on the subject very distinctly, in giving his

²² *Lowell v. Lewis*, 1 Mason's R. 189.

²³ *Barrett v. Hall*, 1 Mason, 489.

²⁴ *Kneass v. Schuylkill Bank*, C. C. U. S. Penn. Oct. 1830, Coxe's Dig. 532

²⁵ *Barrett v. Hall*, 1 Mason's R. 476; and see *M'Farlane v. Price*, 1 Stark. R. 199.

opinion upon the specification, in the case of Ames's patent for an improvement on a machine for paper-making. He says, "Let us see what is the invention as claimed by the inventor in this case. I agree that if he has left it wholly ambiguous and uncertain, so loosely defined, and so inaccurately expressed, that the court cannot, upon a fair interpretation of the words, and without resorting to mere vague conjecture of intention, gather what it is, then the patent is void for this defect. But if the court can clearly see what is the nature and extent of the claim, by a reasonable use of the means of interpretation of the language used, then the patentee is entitled to the benefit of it, however imperfectly and inartificially he may have expressed himself. And for this purpose, we are not to single out particular phrases standing alone, but to take the whole in connexion."²⁰

The case in which the above remarks were made, is an illustration of the doctrine laid down by the judge. In the specification, the patentee, after describing the machinery and apparatus for making paper, to which his patent related, proceeded, "I do not claim the felting, vats, rollers, presses, wirecloth, or any separate parts of the above described machinery or ap-

²⁰ Ames v. Howard, 1 Sumner's Rep. 485.

paratus, as my invention. What I claim as new and as my invention, is, the construction and use of the peculiar kind of cylinder above described, and the several parts thereof in combination for the purpose aforesaid." The cylinder had been described particularly, together with the construction and operation of the machinery and apparatus generally. The question was, whether, under this specification, the patentee had claimed and patented the cylinder and the several parts thereof, *in combination with each other*. Upon this construction, the court remarked that it would be mere tautology, for if the patentee claimed the cylinder, this was a claim of the several parts thereof in combination, and, *vice versa*, if he claimed the several parts in combination with each other, this was nothing more nor less than claiming the cylinder. This construction was to be avoided if any other could be put, not inconsistent with the specification generally, that would give significance to the words. The court was accordingly of opinion "that the patent was for the construction and use of the peculiar kind of cylinder, and the several parts thereof in combination *with the other parts of the machinery*, for the purpose of making paper." To make this specification clear, it was necessary to insert, after *combination*, the words, "*with the other machinery*," and

to interpret "the purpose aforesaid," to mean, *the purpose of making paper*.

Here were obscurity and ambiguity, but the specification, in the opinion of the court, taken altogether, afforded means of giving a construction consistent with the validity of the patent. Instead of adopting a rigid, cautious, and jealous interpretation, after the example of the English courts in many similar cases, and thereby defeating the patent, when it was admitted by the court that the plaintiff had a right to one, it was saved by adopting a broad, liberal, and fair construction.

In the case of Metcalfe's improvement in brushes, the decision was against the validity of the patent, on the ground of the alleged inaccuracy of the description of them in the patent, as "tapering" brushes. It was a *scire facias* brought to repeal the patent. The specification directed that the hairs or bristles should be taken of a length that was described, and before their insertion into the holes in the stock of the brush, should be mixed up together, so that when they were collected and drawn through the holes, and secured by a brass wire, the bristles would be of unequal lengths; whereas, according to the usual mode, the bristles were inserted in the stock, so as to be as nearly of the same length as possible, and were afterwards

cut down so as to be of the same length. The counsel for the patentee stated that by compressing the bristles in each tuft, the effect would be to make them converge to a point. Lord Ellenborough: "If the word *tapering* be used in its general sense, the description is defective. *Tapering* means, gradually converging to a point. According to the specification, the bristles would be of unequal length, but there would be no converging to a point." His lordship advised the jury to find that it was not a *tapering*, but only an *unequal* brush. A verdict was rendered for the crown.²⁷

It has been remarked upon this case,²⁸ that the description proposed by Lord Ellenborough, that of *unequal* brush, is, to say the least, no more clear and exact than that of *tapering* brush, used by the patentee. One cannot readily imagine a description more vague, indefinite, and ambiguous, than that given by Lord Ellenborough in this case, and the fact that no better substitute suggested itself to his mind as a general description in a title of the invention, ought to have been a sufficient ground for a very liberal interpretation of the title given by the patentee, which, it is true, gave no distinct idea of the invention, and, as

²⁷ The King v. Metcalfe, 2 Stark. N. P. C. 249.

²⁸ Westminster Review, No 44, April, 1835.

we have seen, the titles of patents frequently give no distinct idea of the invention. The patent in this case would, as has been suggested, have been good in the United States,²⁹ as the defect was in the title, and remedied in the specification. And Mr. Perpigna says it would have been good in France as a sufficiently accurate description.³⁰

In the case of a machine for sharpening seissors, the specification was considered to be defective in exactness. A patent was granted for a machine for giving a fine edge to knives, razors, seissors, and other cutting instruments. The specification described a machine for sharpening cutting instruments, by passing their edges backward and forward in an angle formed by the intersection of two circular files. The specification also stated that other materials besides steel might be employed, according to the delicacy of the edge required. It was proved that if both rollers were files, it would not do for seissors; and that for these one of the rollers should be smooth; but that if Turkey stone were used for both the rollers, instead of steel, it would be possible to sharpen seissors with a machine so constructed. Lord Tenterden. "The

²⁹ *Supra.*

³⁰ French Law of Patents for Inventions, Paris Ed. 1832, p. 70.

specification describes both the rollers as files, and on reading it with attention, I cannot find that the scissor-sharpener is described as having the two rollers different. It appears to me, therefore, that the specification is insufficient, as it nowhere states that the rollers for scissors must be one rough and the other not. With respect to constructing the rollers of Turkey stone, I cannot find that it is any where stated in the specification, that Turkey stones used on both sides will do for scissors.³¹ The decision was against the plaintiff.

In an action for an infringement of a patent for an improvement of the hautboy by increasing the number of *notes*, (in the plural) it appeared by the specification that the patentee had invented only *one* new note. The patent was held to be invalid, although it was proved that great ingenuity had been exerted, and that the fingering was rendered less complicated by the invention.³² The defect in this case was also in the title and not in the specification ; and as the invention was sufficiently described in the latter, the patent would have been good in the United States.

No cases have ever given rise to more discussion on

³¹ Felton v. Greaves, 3 Car. & Payne, 611.

³² Bainbridge v. Wigley, K. B. 1810, 18 Rep. of Arts, 2d Ser. 127.

the accuracy and exactness requisite in the specification, than those on Watt's patent for "a *new invented method* for lessening the consumption of steam and fuel in steam-engines." The specification stated that the method consisted of certain *principles*, and attempted to describe the application of these principles. The novelty consisted in keeping the cylinder, or steam-vessel, as hot as the steam which enters it, during the whole time the engine is at work; first, by inclosing it in a case of wood or any other materials, that transmit heat slowly; secondly, by surrounding it with steam or other heated bodies; and thirdly, by suffering neither water, nor any other substance colder than the steam, to enter or come in contact with it during that time. The steam was condensed in vessels distinct from the cylinder, and communicating with it. This was entirely new, as in the old steam-engines water was admitted into the cylinder to condense the steam. The specification did not state in what manner the new machine was to be constructed, in what respects it varied from the old one, or in what way the improvements were to be added; but in the opinion of the judge³³ it was sufficient to enable a mechanic,

³³ Mr. John Farey, in his statement before the Committee of the House of Com. 1829, says the specification in Watt's case was not sufficient to enable a workman to construct the machine.

acquainted with the steam-engines previously in use, to construct one with this improvement.³⁴

Lawrence J. "Two objections have been made to this patent: first, that it is not for any formed or organized machine or manufacture, but for mere principles; secondly, that the specification is bad. By looking at the patent and the recital in the act of Parliament, it appears that Watt obtained a patent for *an engine or mechanical contrivance* for lessening the consumption of steam in steam-engines. It is clear, that the legislature understood that the patent was for an engine or some mechanical contrivance, and the form of the patent and the specification does not contradict this. *Engine* and *method* mean the same thing, and may be the subject of a patent. *Method*, properly speaking, is only placing several things, and performing several operations in the most convenient order; but it may signify a *contrivance or device*; so may an *engine*, and therefore, I think it may answer

³⁴ An act of Parliament was passed to extend the patentee's term, which, after reciting that the patent was "for making and vending certain *engines*, by him invented, for lessening the consumption of steam and fuel in fire-engines," granted to him the sole right of "constructing and selling such engines for twenty-five years;" it was, however, provided, that this grant should be subject to "every objection in law competent against the said patent."

the word *method*. So *principle* may mean a mere elementary truth, but it may also mean constituent parts."

"Then, taking this to be a patent for an engine, it is objected that the specification is bad. The patent must be supported as granted for an improvement and addition to old engines, known and in use, and I think that the patent is good in this point of view. For Watt claims no right to the construction of engines for any determinate object, except that of lessening the consumption of steam and fuel in fire engines. His patent supposes the existence of such engines, and his contrivance, method, or engine, is for lessening the consumption of fuel in such pre-existing engines, and for nothing else. Some of the difficulties in the case have arisen from considering the word *engine* in its popular sense, namely, some mechanical contrivance to effect that to which human strength, without such assistance, is unequal; but it may also signify *device*; and that Watt meant to use it in that sense, and that the legislature so understood it, is evident from the words *engine* and *method* being used as convertible terms. Now there is no doubt but that for such a contrivance a patent may be granted, as well as for a more complicated machine; it equally falls within the description of a "manufacture;" and unless such de-

vices did fall within that description, no addition or improvement could be the subject of a patent."

Wheeler's patent for a preparation for coloring beer was adjudged bad, on account of the inaccuracy of the description in the title, and the insufficiency of the specification. It was for "a new and improved method of drying and preparing malt." In the specification it was stated that the "invention consisted in the heating of malt to 400 degrees and upwards, of Fahrenheit's thermometer, according to a process or processes hereafter described." Abbott C. J. "This is a patent for the invention of a method, that is, of an engine, instrument or organ, to be used for the accomplishment of some purpose; or at least of a process to be so used. The patentee does not profess to be the inventor of any engine, instrument, or organ; he says, that a coffee-roaster, or a kiln, or any thing by which the grains may be kept in motion during their exposure to the requisite degree of heat, may be used. Neither has he described any certain or precise process, which, admitting that there may be a patent for a process only, ought unquestionably to be done. He does not mention the state in which the malt is to be taken, for the purpose of undergoing the process, whether in a moist or dry state, as was before noticed; he does not say, what heat beyond 400 degrees of

Fahrenheit may be used; he does not furnish the operator with any means of knowing when he has this degree of heat; he does not say, during what length of time the process is to be continued, but contents himself with saying, that "the proper degree of heat and time of exposure will be easily learned by experience, the color of the internal part of the prepared grain affording the best criterion;" not even mentioning what the color is, which is to be the criterion. A specification which casts upon the public the expense and labor of experiment and trial, is undoubtedly bad. If it be said that all these matters will be well or easily known to a person of competent skill (and to such only the patentee may be allowed to address himself), then the inventor will not in reality have given any useful or valuable information to the public; so that in either way of viewing the case, there is either no certain and clear process described, or the process described is such as might be practised without the assistance of the patentee." The patent was adjudged to be void.³⁵

It has been suggested,³⁶ that this decision is an illustration of an illiberal application of the rules on the

³⁵ *King v. Wheeler*, 2 Barn. & Ald. 345.

³⁶ *Westminster Review*, No. 44.

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subject of specifications. Whether it be so or not will evidently depend, in a great degree, upon what may be supposed to be known to persons practised in the manufacture of malt, and in the art of brewing. The writer just alluded to, supposes that a person conversant with these manufactures would very readily learn to make and use the new invented malt by the directions given in the specification. However this may have been in the particular case, the doctrines and principles of the decision are no doubt correct, and the precedent is equally good, whether the court applied these doctrines to the actual case before them, or to one supposed by them through mistake.

Sec. VII.—WHAT IS CLAIMED AS NEW MUST BE DISTINGUISHED FROM WHAT IS OLD. IT MUST APPEAR WHAT IS CLAIMED AS NEW. THE INVENTOR MUST NOT CLAIM TOO MUCH.

It is a general rule that the patentee must not claim, in his specification, any more than he has invented, and that by claiming too much his patent is void. And if the specification contains a description of what is old and known as well as what is new, what is claimed as new must be distinguished.* The form of

* *Dixon v. Mayor*, Coxe's Dig. 533; and see cases below.

making this distinction is immaterial ; it is enough that it plainly appears from the specification and patent, what is claimed by the patentee as his invention, and that he claims nothing more than he has invented. Mr. Justice Park says, any ambiguity may be avoided by the patentee's disclaiming that which is not his own discovery.²⁸ The more frequent form, however, is to state positively what the patentee does claim, saying that he claims only such and such things. In other cases it is stated both negatively what he does not claim, and positively what he does claim as his invention. It is sufficient if it appear by the specification, in whatever manner, what he does claim, and that the claim is not broader than the invention.

In specifying an improvement in a machine it is often necessary to describe the whole machine as it operates with the improvement, in order to make the description intelligible, and enable an artist to construct the machine, as the inventor is bound to do in his description, and which, if he fails to do, he falls into the fault of obscurity. On the other hand, if the whole machine, as well the old as new part, be thus described, it is requisite to distinguish what part the patentee claims, since if this does not satisfactorily ap-

²⁸ *Campion v. Benyon*, 3 Brod. & Bing. 5.

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pear, the patent will, as we have seen, be void for ambiguity; or, if the obvious construction is, that he claims the whole machine in its improved state, the patent will be void by reason of the patentee's claiming too much.

The mode of expression generally used in the books in relation to this subject, is, that the specification must distinguish the new from the old. The only object of this distinction is, however, to specify what the patentee claims, and the mere discrimination of the new from the old would not necessarily show this, for, perhaps, he does not claim all that is new. When the cases say, therefore, that the specification must distinguish the new from the old, we must understand the meaning to be that it must show distinctly what the patentee claims, the only object of this distinction being for this purpose. This doctrine is illustrated by some of the cases already stated, and it runs through them all wherever this question arises.³⁹

³⁹ *Hill v. Thompson*, 3 Meriv. 629; *Barrett v. Hall*, 1 Mason's R. 576; *Boville v. Moore*, 2 Marsh. R. 211; *McFarlane v. Price*, 1 Stark. R. 199; *Woodcock v. Parker*, 1 Gallis. R. 438; *Whittemore v. Cutter*, 1 Gallis. R. 478; *Odiorne v. Winkley*, 2 Gallis. R. 51; *Evans v. Eaton*, 3 Wheat. 354; S. C. 7 Wheat. R. 356; S. C. 1 Pet. C. C. R. 342; *Dixon v. Mayer*, 4 Wash. C. C. R. 68; *Champion v. Benyon*, 3 Brod. & Bing. 5; *George v. Beaumont and others*, Rep. of Arts. N. S. Vol. 27, p. 252; *Cochrane*

The Court of King's Bench held it sufficient, in one case, to describe the whole machine as improved, and refer to the patent of the original machine on which the improvement was made, the two specifications being so framed that a person, by consulting both, might distinguish what was new. A patentee of a machine for dressing woolen cloths, duly enrolled his specification, and, several years afterwards, obtained another patent for certain improvements in the machine, in which the grant of the former patent was recited. The specification of the latter patent contained a full description of the whole machine in its improved state, but did not point out or distinguish the improvements from the former machine by any verbal description, or by any delineation or mark in the drawing. The improvements, however, could be ascertained by referring to the first specification, and comparing it with the second specification and the drawings. It was held that the second specification was sufficient. Lord Ellenborough. "I own I was disposed to think that

v. Smethurst, 1 Stark. R. 205; *The King v. Elsee*, Bull. N. P. 76; *Rogers v. Abbot*, 4 Wash. C. C. R. 514; *Watson v. Bladen*, 4 Wash. C. C. R. 580. The act of Congress of 1836, and the act of Parliament of 1835, as subsequently stated, in Sec. 10 of this chapter, make provision whereby the patentee may avoid the entire loss of his privilege in consequence of including too much in his specification.

it was a departure from the terms of the proviso, for the patentee merely to tell the inquirer who came to consult the specification, how he might learn what the invention was, instead of giving him that information directly. But I feel impressed by the observation of my brother Le Blanc, that the trouble and labor of referring to and comparing the former specification with the latter, would be full as great if the patentee only described in this the precise improvements upon the former machine. Reference must indeed often be necessarily made in these cases to matters of general science, or the party must carry a reasonable knowledge of the subject matter with him, in order clearly to comprehend specifications of this nature, though fairly intended to be made."⁴⁰

But this is by no means a skilful or safe mode of making a specification of an improvement.

Upon this subject Mr. Justice Story says, "If the description in the patent mixes up the old and the new, and does not distinctly ascertain for which in particular the patent is claimed, it must be void; since if it covers the whole, it covers too much, and if not intended to cover the whole, it is impossible for the court to say what, in particular, is covered, as the

⁴⁰ *Harmar v. Playne*, 11 East, 101.

new invention. The language of the St. 1793, c. 156, s. 8, is decisive on this point. It is, however, sufficient if what is claimed as new appear with reasonable certainty on the face of the patent, either expressly or by necessary implication. But it ought to appear with reasonable certainty, for it is not to be left to minute references and conjectures from what was previously known or unknown ; since the question is not, what was before known, but what the patentee claims as new ; and he may in fact claim as new and patentable what has been long used by the public."⁴¹

The law is laid down in the same manner by Mr. Justice Buller. A patent was granted for a new invented manufacture of lace, called French lace. The specification went generally to the invention of mixing silk and cotton thread upon the frame. It was clearly proved that, prior to the patent, silk and cotton thread had been used together and intermixed upon the same frame ; and the counsel for the patentee acknowledged the fact, but said he could prove, that the former method of using the silk and cotton thread was quite inadequate to the purpose of making lace, on account of its coarseness, and that the patentee alone had in-

⁴¹ *Lowell v. Lewis*, 1 Mason, 189.

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vented the method of intermingling them, so as to unite strength with firmness. Buller J. "It will be to no purpose. The patent claims the exclusive liberty of making lace composed of silk and cotton thread mixed; *not of any particular mode* of mixing it, and therefore, as it has been clearly proved and admitted, that silk and cotton thread were before mixed on the same frame for lace in some mode or other, the patent is clearly void, and the jury must find for the crown."⁴⁸

In putting a construction upon a specification as to the extent of the patentee's claim, the whole is to be taken into consideration, and general expressions which accepted literally would cover too much ground, may be limited by other parts of the specification. A specification stated the invention to be an approved apparatus for "extracting inflammable gas by heat, from pit-coal, tar or any other substance from which gas or gasses, capable of being employed for illumination, can be extracted by heat." It was proved that the apparatus would not succeed in making gas from oil; and it was argued, that there was nothing to prevent a person who saw this specification from considering that oil gas was meant to be included in it.

⁴⁸ The King v. Elsec, Dav. Pat. Cas. 144.

Lord Tenterden ruled, that "the words 'other substance,' must mean other substance *ejusdem generis*, and that oil was not meant to be included in it, it being proved that, at the time in question, oil was considered much too expensive to be used for the making of gas for the lighting of streets and buildings, though it was known to afford an inflammable gas."⁴³

The patent for Brown's improvement on a lace-machine, was ruled by Gibbs C. J. to be void, because the specification claimed the whole machine, though a considerable part of it had been long in use.⁴⁴

So in an American case, where the general description in the letters patent stated that the grant was for "a new and useful improvement in manufacturing cotton and wool cards," Mr. Justice Story held that the specification must be considered as controlling the generality of expression and limiting the grant to the machine specifically described therein.⁴⁵

It is sufficient to defeat the patent, though the part claimed, which is not new, or not invented by the patentee, be unimportant. Mr. Justice Story says,

⁴³ *Crossly v. Beverly*, 3 Car. & P. 513.

⁴⁴ *Bovill v. Moore*, Dav. Pat. C. 361. See also *Williams v. Brodie*, cited Dav. Pat. Cas. 96.

⁴⁵ *Whittemore v. Cutter*, 1 Gallison, 437.

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that, "Where the patentee claims any thing as his own invention, in his specification, courts of law cannot reject the claim ; and if it is included in the patent, and found not to be new, the patent is void, however small or unimportant such asserted invention may be. Where he sums up the particulars of his invention, and his patent covers them, he is confined to such summary ; and if some part, which he claims in his summing up as his invention, prove not to be in fact his invention, he cannot be permitted to sustain his patent by showing that such part is of slight value or importance in his patent. His patent covers it, and if it be not new, the patent must be void."⁴⁶

Where a patent was granted for improvements in the manufacturing of ships' anchors, windlasses, and chain-cables, but it appeared that there was no novelty in the construction of the anchors, it was held that the patent was wholly void, although the other improvements might be new. **Abbott C. J** "It is quite clear, that a patent granted by the crown cannot extend beyond the consideration of the patent. The king could not, in consideration of a new invention in one article, grant a patent for that article and another. The only difference between the case of *Hill v.*

⁴⁶ *Moody v. Fiske*, 2 Mason, 112.

Thompson, (2 J. B. Moore, 424,) and this, is, that here the patentee, instead of saying that he has made certain improvements, states the improvements, but still he claims the merit of having invented improvements in the manufacture of three things. The consideration is entire, and if it turns out that there is no novelty in one of the improvements, the consideration fails in the whole, and the patentee is not entitled to the benefit of that other part of his invention."⁴⁷

In the description of an improvement, the phrases "improved machine," and "improvement of a machine," mean substantially the same thing.⁴⁸ The patentee should not claim a new mode or device as detached from the machinery, but as combined with the machinery or construction by which the effect, whether new or old, is produced. "If," says Mr. Justice Story, "an invention consist in a new combination of machinery, or in improvements upon an old machine to produce an old effect, the patent should be for the combined machinery, or improvements on the old machine, and not for a mere mode or device for producing such effects, detached from the machinery.

⁴⁷ Brunton v. Hawkes, 4 B. & Ald. 540.

⁴⁸ Barrett v. Hall, 1 Mason's R. 475; Boulton v. Bull, 2 H. Bl. 468, 482; Evans v. Eaton, 3 Wheaton, 454.

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This doctrine may not be of as extensive consequence under our patent act, where the specification forms a part of the patent, and may control its generality, as in England, where the specification is separated from it; but it distinctly shows the necessity of an exact description, so that the patent may conform to the invention."⁴⁹

This subject came up very early in the cases on Watt's patent. In one of these cases Mr. Justice Buller said, that since the case of *Morris v. Branson*, in 1776, "it has been the generally received opinion in Westminster Hall, that a patent for an *addition* is good. But then it must be for the addition only, and not for the old machine too. In *Jessop's* case, the patent was held to be void, because it extended to the whole watch, and the invention was of a particular movement only. It was admitted, in the reply, that the patent should be applied to the invention itself; but it was contended that if, in consequence, the patent gave a right to the whole engine, that would be no objection. To this I answer, that if the patent be confined to the *invention*, it can give no right to the *engine*, or to any thing beyond the invention itself. Where a patent is taken for an improvement only, the

⁴⁹ *Barrett v. Hall*, 1 Mason, 476.

public have a right to purchase that improvement by itself, without being encumbered with other things. A fire engine of any considerable size, I take it, would cost about 1200*l.*, and suppose the alteration made by the plaintiff, with a fair allowance for profit, would cost 50 or 100*l.* is it to be maintained, that all the persons who already have fire engines must be at the expense of buying new ones from the plaintiffs, or be excluded from the use of the improvement? So in the case of the watch, may not other persons in the trade buy the new movement, and work it up in watches made by themselves? Where men have neither fire engines nor watches, it is highly probable that they will go to the inventor of the last and best improvements for the whole machine; and if they do, it is an advantage which the inventor gets from the option of mankind, and not from any exclusive right or monopoly vested in him.”⁴⁰

A case came before Lord Ellenborough at *nisi prius*, on a patent for an improvement in making parasols and umbrellas, in which it was objected that the specification did not clearly direct how to make the article, and did not distinguish what was new. The specification professed to set out the improvements as specified

⁴⁰ *Boulton v. Bull*, 2 H. Bl. 489.

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in certain descriptions and drawings annexed. The subjoined description contained a minute detail of the construction of umbrellas and parasols, partly including the usual mode of stretching the silk of the umbrella, and also certain improvements, which consisted chiefly in the insertion of the stretchers, which were knobbed at the sockets formed in the whalebone, instead of attaching them to the whalebone in the usual way. Drawings were given of the umbrellas and parasols in their improved state ; but throughout the whole specification no distinction was made between what was new and what was old. The counsel for the plaintiff contended that the specification was sufficient, since one of the annexed drawings contained a representation of the particular invention which had been pirated, and was confined to the exhibition of the insertion of the knobbed stretchers in the whalebone sockets, from which an artist would be able to construct an umbrella on the improved plan. Lord Ellenborough. "The patentee, in his specification, ought to inform the person who consults it, what is new and what is old. He should say, my improvement consists in this, describing it by words, if he can, or, if not, by reference to figures. But here the improvement is neither described in words nor by figures, and it would not be in the wit of man, unless he were previously acquainted with the

construction of the instrument, to say what was new and what was old. The specification states, that the improved instrument is made in manner following : this is not true, since the description comprises that which is old, as well as that which is new. Then it is said, that the patentee may put in aid the figures, but how can it be collected from the whole of these in what the improvement consists? The plaintiff was nonsuited."⁸¹

The objection was made to Brunton's patent for an improvement in the chain-cable, that the patentee claimed the form of the link which was before in use, instead of claiming the mode of supporting it, which, in fact, was his invention. Best J. "I doubt whether this patent can be sustained, for the specification cannot stand as a description of a new combination of known principles ; it claims an invention as to a part of it, which certainly is not new. I allude particularly to the form of the link. The specification states, that the object to be gained is the greatest possible strength from a given quantity of materials, keeping in mind the direction in which the strain is to be borne. It afterwards says, that this is to be done by the use of that which is new, viz. by the stay introduced between

⁸¹ *McFarlane v. Price*, 1 Stark. N. P. C. 199.

the links, and which, instead of entering them, embraces their sides. If that alone was to be done, it would be new ; but the specification further goes on to say, " it is evident, that of all the forms and constructions that can be given to a link, that form and construction, which shall be able to convert a lateral into an end strain, by yielding support to the opposite sides of the link, is the one that should be preferred. It appears to me, that the patentee here first claims the merit of originally using the links in the particular form described in his specification, instead of circular links. Now there can be no doubt that links of that form had been used long before."⁵⁸

Sec. VIII.—THE SPECIFICATION MUST DIRECT HOW TO MAKE, AND DESCRIBE THE BEST WAY KNOWN TO THE INVENTOR OF MAKING, THE ARTICLE.

The act of Congress of 1836, s. 7, following very closely that of 1793, s. 3, requires the inventor to describe his invention, in his specification, so as " to enable any person, skilled in the art or science to

⁵⁸ Brunton v. Hawkes, 4 Barn. & Ald. 540. The French law does not require the new to be distinguished from the old, but M. Perpigna, in his Treatise on Patents, says, it would be better if it conformed to the English and American law in this respect

which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same."

This is only an express enactment of what has been the established construction of the English statute of monopolies. And, following out the spirit and principle of this rule, the cases decide that the specification must not only direct how the thing patented is to be made, used, or compounded, but must also direct the most economical and advantageous materials, construction and method for this purpose, known to the inventor, and must not mislead the person who consults it. The patent law is founded on the principle of giving the public the full benefit of the invention, which it could not do unless the best mode of using the invention were described. "The end and meaning of the specification," says Mr. Justice Buller, "is to teach the public, after the time for which the patent is granted, what the art is, and it must put the public in possession of the secret in as ample and beneficial a way as the patentee himself uses it. If the specification, in any part of it, be materially false or defective, the patent is against law and cannot be supported. If the specification be such that mechanical men of common understanding can comprehend it, to make a machine by it, it is sufficient; but then it must be such that

persons skilled in the art or science to which the invention relates may be able to make the machine by following the directions of the specification, without making any experiments, and without any new invention or addition of their own."⁵³

Mr. Justice Story thus states the law on this subject. "The law confers an exclusive patent right on the inventor of any thing new, and useful, as an encouragement and reward for his ingenuity, and for the expense and labor attending the invention. But this monopoly is granted for a limited term only, at the expiration of which the invention becomes the property of the public. Unless, therefore, such a specification was made as would, at all events, enable other persons, of competent skill, to construct similar machines, the advantage to the public, which the act contemplates, would be entirely lost, and its principal object would be defeated. It is not necessary, however, that the specification should contain an explanation, level with the capacities of every person, (which would, perhaps, be impossible,) but, in the language of the act (of 1793), it should be expressed in such full, clear

⁵³ The King v. Arkwright, Dav. Pat. Cas. 106. Per Ashurst J., Turner v. Winter, 1 T. R. 606; and see remarks of Buller J. in Boulton v. Bull, 2 H. Bl. 484.

and exact terms, that a person skilled in the art or science of which it is a branch, would be enabled to construct the patented invention."⁵⁴

And so Lord Ellenborough says, "A specification should be sufficient to enable persons of *reasonably competent skill* in such matters, to construct the machine."⁵⁵

It is enough if the specification is made clear by an examination of the drawings referred to in it.⁵⁶ Where it was objected that the dimensions of a stay of a link of a chain cable were not given in the written specification, Abbott C. J. said to the jury, "If a drawing or figure will enable a workman of competent skill to construct the improvement, it is as good as any written improvement."⁵⁷

Mr. Justice Buller remarked, in an early case, that "wherever it appears that the patentee has made a fair disclosure, I have always had a strong bias in his

⁵⁴ *Lowell v. Lewis*, 1 Mason R. 182, and see *Langdon v. De Groot*, 1 Paine's R. 203, which was a patent for folding thread, and one objection stated by the court is that the specification did not describe the manner of folding.

⁵⁵ *Harmer v. Playne*, 11 East, 101.

⁵⁶ See *infra*, s. 9. *Bloxam v. Elsee*, 1 Carr. & P. 558. *Earle v. Shaw*, 4 Mass. R. 1. *Fox ex parte*, 1 Ves. & B. 67.

⁵⁷ *Brunton v. Hawkes*, Rep. of Com. of H. of Com. 1839, App. 206. *Mr. Farey's Papers*.

favor, because, in that case, he is entitled to the protection which the law gives him ; but where the discovery is not fully made, the court ought to look with a very watchful eye to prevent any imposition on the public ;"⁵⁸ and Mr. Justice Gibbs says that " a patentee who has invented a machine useful to the public, and can construct it one way more extensive in its benefit than in another, and states in his specification only that mode which would be least beneficial, reserving to himself the more beneficial mode of practising it, although he will have so far answered the patent as to describe in his specification a machine to which the patent extends, yet he will not have satisfied the law by communicating to the public, the most beneficial mode he was then possessed of, for exercising the privilege granted to him."⁵⁹

A mistake or an incorrectness in what is not material, will not render the patent void.⁶⁰ It is enough that the specification is substantially full and accurate. This is distinctly implied by Abbott, C. J. in a case already cited.⁶¹ It is no objection that a mistake is

⁵⁸ *Turner v. Winter*, 1 T. R. 606.

⁵⁹ *Bovill v. Moore*, Day. Pat. Cas. 361.

⁶⁰ *The King v. Murray*, Buller's N. P. 76, n.

⁶¹ *Bloxam v. Elsee*, 6 B. & C. 169, *supra* 244, and other cases cited *supra* s. 3 and 5.

made by which nobody can suffer, that is, by which no person could be led into an infringement of the patent, without any such instruction on his part, while it is in force, and which will not prevent an artist from constructing the machine, by following the specification, after the patent has expired.

The rules above stated have been applied in a number of cases. In the specification of Arkwright's machine to prepare cotton, silk, flax and wool for spinning, he described all the parts of it as one entire instrument. He did not state, as he should have done, that the hammer, in the front of it, was only to be used in preparing flax; and on this ground, among others, his patent was set aside.⁶⁸

⁶⁸ The King v. Arkwright, Dav. Pat. Cas. 117. See Godson Pat. 121; opinion of Ashurst in Turner v. Winter, 1 T. R. 606; Newbury v. James, 2 Meriv. 446; Hornblower v. Boulton, 8 T. R. 100.

Mr. Farey, in a note to the case of Arkwright, in the Appendix to the Report of the Committee of the House of Commons, 1829, p. 185, says, "The invention for which Mr. Arkwright took his two patents for spinning and preparing, have proved of immense value to the nation; they are universally employed for one great branch of cotton spinning, called twist, for strong hard cotton thread, and still remain nearly on the system that Mr. Arkwright himself established during the patents; also, when combined with the previous invention of Hargrave's spinning jenny, (which was done some years afterwards by Mr. Crompton,) in what is called the mule, they form the other branch of cotton spinning for fine and soft yarn. The spinning of long wool and flax, and prepar-

In an action for the infringement of a patent right for producing a yellow color for painting in oil or water, and making white lead, and separating the mineral alkali from common salt, it appeared that the specification commenced as follows : "Take any quantity of lead, and calcine it, or minium, or red lead, litharge lead, ash or any calx, or preparation of lead,

ing of flax, (after the stages of combing and heckling,) are modifications of Arkwright's system ; and also the preparing of short wool for woollen cloth, the spinning thereof being done by Hargrave's jennies. Of the three inventors of spinning, Hargrave, Arkwright and Crumpton, to whom the nation have owed so much, the first was persecuted, and died in the greatest poverty, amidst a population who were rising to opulence by his means. Arkwright possessed a vigor of mind to command, control and instruct working people, far beyond the talent of a mere artist or inventor, and succeeded in realizing a princely fortune by his manufactory ; but his money was not gained by virtue of his invention ; for the bulk of it was acquired after his patent was set aside ; and others who had invented nothing, but merely copied what he did, made immense fortunes by spinning, as well as himself. Crumpton, whose combination of Hargrave's and Arkwright's inventions in the mule, has much more than doubled the national advantages conferred by his predecessors, was, like Hargrave, ruined in his circumstances, and languished in poverty during a long life, in the very town which had grown up from insignificance to wealthy importance by the practice of his invention. In 1812, his case reached the knowledge of Parliament, and £5000 reward was given him ; but it came too late to have the effect of removing the established impression, that an inventor is almost certain to be ruined, even if his invention succeeds, and proves ever so valuable to others."

fit for the purpose." At the trial, it was objected to the specification that, after directing that the lead should be calcined, it stated that minium might be used, which would not answer the purpose. Neither was it said that the minium should be calcined or fused; but if minium had any reference to the preceding words, then it was to be calcined, which would not produce the effect, fusion being necessary. Buller, J. said, that "it was not pretended by any of the plaintiff's witnesses that he ever made use of minium. And it was proved by the defendant's witnesses, that from the specification, they should be led to use minium, because minium is lead already calcined, which is what the specification directs in the first instance. But minium will not answer the purpose. Then as to fusion, it is said, that the public are directed, by the words of the specification, to continue the heat till the effect is produced; which must necessarily lead to fusion, though fusion is not expressly mentioned. But that is no answer to the objection; for the specification should have shown by what degree of heat the effect was to be produced. Now it does not mention fusion, and, as one of the witnesses said, in order to produce the effect, you must go out of the patent; for fusion is beyond calcination, and in some sense contrary to it; and by mentioning calcination, it should

seem that fusion was to be avoided. He was accordingly of opinion that on this ground the patent was void." Ashurst J. "The first objection to the specification is, that the public are directed 'to take any quantity of lead, and calcine it, or minium, or red lead;' from whence it is inferred that *calcining* is only to be applied to *lead*; I confess, if the objection had rested here, I should have entertained some doubt."⁶⁸

The same specification proceeded as follows: To any given quantity of the above-mentioned materials, add half the weight of sea salt, with a sufficient quantity of water to dissolve it, or rock salt, or sal gem, or fossil salt, or any marine salt, or salt water proper for the purpose. It was objected that fossil salt was improperly mentioned. For fossil salt is a generic term, including all mineral salts, only one of which, *sal gem*, would answer the purpose; because that alone has marine acid. Ashurst J. "I understand that sal gem is the only one which can be applied to this purpose; so that throwing in *fossil salt* can only be calculated to raise doubts and mislead the public. That word could not have been added with any good view; it must produce many unnecessary experiments; therefore, in that respect, the specification is not so accurate

⁶⁸ Turner v. Winter, 1 T. R. 602.

as it should have been." The patent was held to be void.⁶⁴

In the same case, Buller J. said, that "if the patentee could only make the color with two or three of the ingredients specified, and he has inserted others in the specification which will not answer the purpose, that will avoid the patent. If the patentee makes the article for which the patent is granted, *with cheaper materials* than those which he has enumerated in the specification, although the latter will answer the purpose equally well, the patent is void, because he does not put the public in possession of his invention, or enable them to derive the same benefit from it which he himself does."⁶⁵

So Mr. Chief Justice Gibbs says, "A person who applies for a patent, and proposes a mode of carrying on the invention in the most beneficial manner, must disclose the means of producing it in equal perfection, and with as little expense and labor as it costs the inventor himself. The price that he pays for his patent is, that he will enable the public, at the expiration of his privilege, to make it in the same way, and with the same advantages. If any thing which gives an

⁶⁴ Turner v. Winter, 1 T. R. 602.

⁶⁵ Turner v. Winter, 1 T. R. 607.

advantageous operation to the thing invented, be concealed, the specification is void."⁶⁶

A patent was granted for a new mode of making verdigris. The patentee was accustomed, during the process of the manufacture, clandestinely to introduce *aqua fortis* into the boiler; by means of which a more rapid solution of the copper was produced. This was not stated in the specification. Gibbs C. J. "Although the specification should enable a person to make verdigris substantially as good without *aqua fortis* as with it; still, inasmuch as it would be made with more labor by the omission of *aqua fortis*, it is a prejudicial concealment, and a breach of the terms which the patentee makes with the public. If it is proved that *aqua fortis* was used by the inventor as an ingredient, the patent is void."⁶⁷

A patent was obtained for a new method of drying and preparing malt. It was objected that the patent was void, because it appeared from the specification, that it was merely a method of giving to malt, previously prepared, the qualities of being soluble in water and coloring the liquor in which it should be dissolved, which was accomplished by the application of a high

⁶⁶ Wood v. Zimmer, Holt's N. P. C. 53.

⁶⁷ Wood v. Zimmer, Holt's N. P. C. 56.

degree of heat. Abbott C. J. "It was argued that the term, *malt*, is applied to the grain as soon as it has germinated by the effect of moisture, and before it has been dried; that malt in that state might be taken and used for the objects of the invention; and that, as these were to be accomplished by heat, it was an invention for drying malt. But if this were so, then the specification would be defective in not informing the reader, that the malt to be used for the intended object might or ought to be taken in that state, and in leaving him to discover by experiment whether it should be taken in that state, or after drying, which, according to the most common use of the word *malt*, he might very reasonably suppose."⁸⁸

On the subject of the patentee's describing the best way of practising the art or making the article patented, the English jurisprudence presents one rule which is not applicable in ours. As the inventor is, in England, allowed a certain time after the grant of the patent to enroll his specification, and as during that time he may make new discoveries and improvements, he is required to describe in his specification, not merely the best method known to him at the time of taking out the patent, but he must include also all his

⁸⁸ King v. Wheeler, 2 Barn. & Ald. 353.

subsequent discoveries and improvements, down to the time of specifying.⁶⁶ In the United States, as the specification is drawn up before the patent is made out, the above rule is not applicable.⁷⁰

Sec. IX.—REFERENCE IN THE SPECIFICATION TO
DRAWINGS.

The third section of the act of Congress of 1793, after prescribing the requisites of the specification, provides that the inventor shall accompany it "with drawings and written references, where the nature of the case admits of drawings." The act of 1836, s. 6, contains the same provision, correcting the phraseology merely by saying "drawing or drawings," which does not alter the construction.

⁶⁶ *Crossley v. Beverly*, 9 Barn. & Cress. 63. In stating this doctrine, Lord Tenterden remarks that time is given for enrolling the specification, for the purpose of allowing the inventor an opportunity to perfect his invention.

⁷⁰ "Near the end of the reign of Queen Anne, it became the custom to insert a proviso into all patents to require the patentee to execute a complete specification of the invention for which the patent was granted, and also to enroll the same in the court of chancery within a specified time. Before that time the patentee was not called upon for any specification." *Mr. Savery's patent of 1698*, for some kind of fire engine, had no such clause. *Rep. of Com. of House of Com. 1829*, App. p. 170. *Mr. Farey's Papers*,

The drawings are a part of the specification where they are referred to in it," "and may help and make good a specification which would otherwise be defective."⁷¹

The English and American jurisprudence coincide in this doctrine. Where it was, in 1825, objected to a specification that there was some little obscurity in it, and that it contained French terms, Abbott C. J. said, that "the inventor of a machine was not tied down to make such a specification, as, by words only, would enable a skilful mechanic to make the machine, but he is to be allowed to call in aid the drawings which he annexes to the specification; and if, by a comparison of the words and the drawings, the one will explain the other sufficiently to enable a skilful mechanic to perform the work, such a specification is sufficient."⁷²

So in a previous trial, in 1820, on Brunton's patent for chain cable's anchors and windlasses, where it was objected that the dimensions of the stay of the link were not described in words, Abbott C. J. said to the jury, "If a drawing or figure will enable a workman

⁷¹ *Earle v. Sawyer*, 4 Mass. R. 1. See *supra* c. 10.

⁷² *Kent's Com.* v. 2, p. 270.

⁷³ *Bloxam v. Elsee*, 1 Carr. & P. 558.

of competent skill to construct the improvement, it is as good as any written description."⁷⁴

So Lord Ellenborough, in 1816, said to the jury on the subject of distinguishing what was claimed; "The inventor should say, 'My improvement consists in this,' describing it in words if he can, if not, by reference to figures."⁷⁵

Lord Eldon says, the inventor may, if he chooses, annex to his specification a picture or model descriptive of it; but then, he adds, "his specification must be in itself sufficient, or I apprehend it will be bad."⁷⁶ If by this be meant that the description in words must be such as to give an adequate knowledge of the invention without recurrence to the drawings, it is inconsistent with the other decisions. If it be meant that notwithstanding the annexing of drawings, a specification must be given in words as accurate and intelligible as the subject admits of, or, in other words, that the drawings cannot be a substitute for a specification, it is no doubt correct.

"The st. 1793, c. 156, § 3, requires that the inventor 'shall deliver a written description of his in-

⁷⁴ Brunton v. Hawkes and another. Rep. of Comm. of House of Com. 1829, p. 206; App. Mr. Farey's notes.

⁷⁵ Macfarlane v. Price, 1 Stark. R. 189.

⁷⁶ Fox ex parte, 1 Ves. & B. 67.

vention, &c.; and he shall accompany the whole with drawings and written references, where the nature of the case admits of drawings,' &c. This is an explicit direction to annex drawings, where the nature of the case admits of them, with *written* references; and when so annexed, they become part of the *written* description required by the act. They may be indispensable to distinguish the thing patented from other things before known. Surely then the act could not intend studiously to exclude them as part of the written description. That would be to require the end and deny the means."⁷⁷

It was held by the King's Bench, in England, that a specification in a former patent might be referred to in a subsequent one, so as to be made a part of it.⁷⁸

But specimens and models, deposited in the patent office, cannot be resorted to for the purpose of supplying any defect in the specification.

Sec. X.—CONSEQUENCES OF A DEFECT IN THE SPECIFICATION.

Before the British act of 5 and 6 Wm. IV. c. 83, (1835,) the consequence of a defect in the specifica-

⁷⁷ Per. Story J., *Earle v. Sawyer*, 4 Mason R. 9.

⁷⁸ *Harmer v. Playne*, 10 East, 101.

Sec. X.] *Consequences of Defect in Specification.* 295

tion, in England, was an absolute loss of the privilege of the patent right. By the first section of that act, the patentee or his assignee "may, with the leave of the attorney or solicitor general, enter a disclaimer of any part of either the title of the invention or of the specification, stating the reason for such disclaimer, or may, with such leave, enter a memorandum of any alteration in the said title or specification, not being such disclaimer, or such alteration as shall extend the exclusive right granted by the patent;" and such disclaimer or memorandum is thereafter to be considered a part of the title or specification.⁷⁹

By the fifth section of the act of Congress of 1832, it is enacted that "whenever any patent shall be invalid or inoperative, by reason that any of the terms and conditions prescribed in the third section in the said act (of 1793) have not, by inadvertence, accident or mistake, and without any fraudulent or deceptive intention, been complied with on the part of the said inventor, it shall be lawful for the secretary of state, upon the surrender to him of such patent, to cause a new one to be granted to the said inventor, for the

⁷⁹ This act was introduced by Lord Brougham, and is the result of the examinations made by the committee of the House of Commons, in 1829, and remedies some of the most material defects of the English law as it stood before.

same invention, for the residue of the period then unexpired, for which the original patent was granted, upon his compliance with the terms and conditions prescribed in the said third section of said act."

The act of 1836, section 13, makes a similar provision, viz. that, "whenever any patent shall be inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification, as his own invention, more than he had or shall have a right to claim as new; if the error has or shall have arisen by inadvertency, accident or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor, for the same invention, for the residue of the period then unexpired, for which the original patent was granted, in accordance with the patentee's corrected description and specification. And in case of his death or any assignment of the original patent, a similar right shall vest in his executors, administrators or assigns. And the patent so waived, together with the corrected description and specification, shall have the same effect and operation in law, on the trial of all actions thereafter, for causes subsequently accruing, as though the

same had been originally filed in such corrected form, before the suing out of the original patent."

CHAPTER XII.

*Signing of the Specification. Attestation. Oath.
Delivery of Drawings, Models and Specimens.
Petition. Fees.*

- Sec. 1. *Signing of the Specification. Attestation.*
2. *The Oath.*
3. *Delivery of Drawings, Models and Specimens.*
4. *The Petition.*
5. *Payment of the Fee.*

Sec. I.—SIGNING OF THE SPECIFICATION. ATTESTATION.

THE third section of the act of 1793 required that the specification should be signed by the inventor and attested by two witnesses. The act of 1836 makes a slight alteration by providing, section 6, "that the descriptions and drawings, signed by the inventor and attested by two witnesses, shall be filed in the patent office." The former act said nothing of the drawings

being signed by the applicant ; but the signing of the specification referring to the drawings is in effect attesting the latter. Whether a distinct signature will be required under this law remains to be decided. The practice under this law is to sign the drawings distinctly. None of the acts on this subject have required the applicant to affix a seal to the specification.

Sec. II.—THE OATH.

It seems to be reasonable that a patent should not be granted except upon probable grounds of a right. The law of 1793, therefore, required that the applicant, "before he could receive a patent, should swear or affirm that he did verily believe that he was the true inventor or discoverer of the art, machine or improvement for which he solicited a patent, which oath or affirmation might be made before any person authorized to administer oaths." The substituted law of 1836, section 6, varies a little from the former law on this subject. It provides that "the applicant shall make oath or affirmation that he does verily believe that he is the original and first inventor or discoverer of the art, machine, composition or improvement, for which he solicits a patent, and that he does not know or believe that the same was ever before known or used ;

and also of what country he is ; which oath or affirmation may be made before any person authorized by law to administer oaths." The phrase, "*original and first inventor*," is substituted for that of *true inventor* in the act of 1793. That part of the oath relating to the invention being ever before known or used, is added, and not superfluously, for it often happens that a man truly invents a machine, and then finds out that some one had previously invented the same machine. The last part, stating of what country the applicant is, was also added, the purpose, under the law of 1836, being to determine the fee to be paid. Under the former law the citizenship of the applicant was material, for unless he was a citizen of the United States or resident therein for two years, he could not take out a patent. But it did not intimate what proof of either fact was to be given. It was a frequent practice to insert the fact of citizenship or residence in the affidavit. We observe that this oath is not absolute, that the applicant *is* the original inventor ; he is required to swear that he verily *believes* himself to be such ; for though he may positively *know* whether he invented the machine, he cannot know certainly whether he is the *original* and first inventor.

The law of 1836, s. 15, provides " that whenever it shall satisfactorily appear that the patentee, at the

time of making his application for a patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof having been before known or used, in any foreign country, it not appearing that the same or any substantial part thereof had been patented, or described in any public work."

This is an alteration of the law on the subject of the novelty of the invention, of some importance ; but it does not affect the oath, since, notwithstanding this provision, the applicant must, at the time of making his application, believe himself to be the first inventor. If, before making his application, he learns that the thing had been already invented and used abroad, though not patented or described in any printed publication, he cannot take the oath ; but if he learns it subsequently, it seems that, according to the above section, this will not invalidate his patent.

SEC. III.—DELIVERY OF DRAWINGS, MODELS AND SPECIMENS.

By the law of 1836, s. 6, the specification must be accompanied with a drawing or drawings and written references, where the nature of the case admits of

drawings, and with specimens of ingredients and of the composition of matter, sufficient in quantity for the purpose of experiments, where the invention or discovery is of a composition of matter. The law of 1793, s. 3, was substantially the same.

The same section of the law of 1836 requires that the inventor shall furnish a model of his invention, in all cases which admit of representation by model, of a convenient size to exhibit advantageously its several parts. This is a variation from the former act of 1793, s. 3, which required a model, "provided the secretary should deem such model to be necessary."

Sec. IV.—THE PETITION.

By the act of 1836, section 6, "Any person or persons, having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter, not known or used by others, before his or their discovery or invention thereof, and not at the time of his application for a patent, in public use or on sale, with his consent or allowance, as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the commissioner

of patents, expressing such desire, and the commissioner, on due proceedings had, may grant a patent therefor."

The provisions of the act of 1793, s. 1, on this subject were not literally the same, though they were substantially,¹ for the above section is merely an expression of the construction already put upon the former act, excepting that part which directs the application to be addressed to the commissioner of patents instead of the secretary of state.

Sec. V.—THE FEE.

A patent is, as we have seen, a reward for a meritorious consideration, and a grant for a valuable one,² and the laws by which provision is made for granting these monopolies are founded on a public policy peculiar to useful inventions and discoveries. The practice of selling monopolies, or granting them, except on these grounds, was expressly abolished in England by the statute of 21 James I. c. 3, and is inconsistent with the sound principles of legislation, as at present very

¹ See exposition of the act of 1793, by Mr. Justice Story, *supra*, pp. 174, 175.

² Ch. I.

generally admitted. It is not consistent with those principles to demand any price in money from an inventor, as the whole or a part of the consideration for the exclusive privilege granted to him. And yet it is not a little remarkable that in both England and France the sum paid by the inventor is considered to be in part the *price* of his privilege, and is frequently so represented by the persons examined before the committee of the House of Commons in 1829.

The law of 1836, section 9, provides "that before any application for a patent shall be considered by the commissioner, the applicant shall pay into the treasury of the United States, or into any of the deposite banks to the credit of the treasury, if he be a citizen of the United States, or an alien and shall have been resident in the United States for one year next preceding, and shall have made oath of his intention to become a citizen thereof, the sum of thirty dollars; if a subject of the king of Great Britain, the sum of five hundred dollars; and all other persons, the sum of three hundred dollars. And the moneys received into the treasury under this act shall constitute a fund for the payment of the salaries of the officers and clerks, and all other expenses of the patent office."

One reason of the distinction between the fees paid

by Americans and foreigners, is, I presume, the greater fees paid for patents abroad ; and the amount demanded of a subject of Great Britain is greater than that demanded of other foreigners, because a greater sum is demanded in England than in other foreign countries. Another motive may be to prevent patents being taken out by foreigners for inconsiderable inventions.

The fee is graduated upon the principle of merely defraying the expenses of the patent office out of the contributions made by the patentees. This is the utmost extent to which the exaction can be justified, and it is questionable whether it ought not to stop short of this. The granting of patents is a matter in which the public has as great an interest on one side, as patentees have on the other ; and if the latter are required to defray one half of the expense of clerk hire and other expenses incidental to the executive administration of these laws, it is quite their full proportion, especially since they are put to the expense of models to be deposited in the patent office, merely for the public benefit, and not at all for their own. This fee, as fixed by the law, is not a material obstacle to the beneficial operation of the patent laws.³

³ As small as the fee is in the United States, the committee of Congress who reported the law of 1836, stated that the surplus

CHAPTER XIII.

Proceedings in issuing Patents.

- Sec. 1. *Authority of Commissioner of the Patents.*
2. *Appeal to Examiners.*
3. *Conflicting Applications.*
4. *Signature.*
5. *Recording.*

SEC. I.—AUTHORITY OF THE COMMISSIONER OF PATENTS.

By the act of 1793, it was made the duty of the secretary of state to cause patents to be issued, the patent being submitted to the attorney general, and by him certified to be made out in conformity to the law, before being signed by the President. The law of

accruing from this fee is 152,000 dollars. The same committee report that the average annual number of patents issued from 1790 to 1800 was 26; from 1800 to 1810, 91; from 1810 to 1820, 200; and during the last ten years preceding the time of making the report, 535; and that the number in 1835 was 776; and that the whole number issued at the patent office up to March 31st, 1836, was 9,731, being more than double the number issued in France or England during the same period.

1836 has assigned the duty of superintending the issuing of patents to the commissioner of patents. The seventh section of that law provides, that on an application being made for a patent; and a specification filed, and the fee paid, "the commissioner shall make, or cause to be made, an examination of the alleged new invention or discovery; and if on such examination it shall not appear that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, or that it had been patented, or described in any printed publication in this or any foreign country, or had been in public use, or on sale with the applicant's consent or allowance prior to the application, if the commissioner shall deem it to be sufficiently important, it shall be his duty to issue a patent therefor. But whenever, on such examination, it shall appear to the commissioner that the applicant was not the original and first inventor or discoverer thereof, or that any part of that which is claimed as new had before been invented or discovered or patented, or described in any printed publication in this or any foreign country, as aforesaid; or that the description is defective and insufficient, he shall notify the applicant thereof, giving him briefly such information and references as may be useful in judging of the propriety of waiving his appli-

cation or of altering his specification to embrace only that part of the invention or discovery which is new. In every such case, if the applicant shall elect to withdraw his application, relinquishing his claim to the model, he shall be entitled to receive back twenty dollars, part of the duty required by this act, on filing a notice of such intention in the patent office."

It is evident that the judgment of any officer of the government, on the novelty and originality and utility of the invention, and the sufficiency of the specification, must be formed upon very superficial grounds. In the United States, for instance, the commissioner must pass upon from two to three patents in a day upon an average; a time scarcely sufficient to enable him to understand the specification, supposing him to have some previous knowledge of the subject of the invention. He cannot, therefore, be expected to reject the application except in a very plain case.

Sec. II.—APPEAL TO EXAMINERS.

The act of 1836, section 9, c. 357, provides for an appeal from the decision of the commissioner. If the applicant, in case of a decision by the commissioner against him, "shall persist in his claim for a patent,

with or without any alteration of the specification, he shall be required to make oath or affirmation anew," as at the time of his application. "And if the specification shall not have been so modified as, in the opinion of the commissioner, shall entitle the applicant to a patent, he may, on appeal, and upon request in writing, have the decision of a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the secretary of state, one of whom to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture or branch of science to which the alleged invention appertains, who shall be under oath or affirmation for the faithful and impartial performance of the duty imposed upon them by said appointment. Said board shall be furnished with certificate, in writing, of the opinion and decision of the commissioner, stating the particular grounds of his objection, and the parts of the invention which he considers as not entitled to be patented. And the said board shall give reasonable notice to the applicant, as well as to the commissioner, of the time and place of their meeting, that they may have opportunity of furnishing them with such facts and evidence as they may deem necessary to a just decision; and it shall be the duty of the commissioner, to furnish to the board of examiners such infor-

mation as he may possess relative to the matter under consideration. And on an examination and consideration of the matter by such board, it shall be in their power, or of a majority of them, to reverse the decision of the commissioner, either in whole or in part, and their opinion being certified to the commissioner, he shall be governed thereby, in further proceedings to be had on such application." The applicant is to pay twenty-five dollars towards the expenses of this examination, and the examiners are to receive not exceeding ten dollars each for their services.

Sec. III.—CONFLICTING APPLICATIONS.

The subject of the preceding section is a conflict between the claim of the patentee and the supposed rights of the whole community. The next inquiry relates to an interference of the claim of the applicant with that of other individuals for the same exclusive privilege. The questions do not exclude each other, since two several applicants might apply for a patent which the commissioner might be of opinion ought not to be granted at all, and the questions would then be whether it ought to be granted at all, and, if so, which has a good claim for it.

On the subject of interfering claims, the law of

1793, section 9, provided for an arbitration, one arbitrator to be appointed by each applicant, and a third by the secretary of state. The award of the arbitrators has been held not to be conclusive upon any question excepting that of issuing the patent.¹ The act of 1836, section 8, provides for the case of interfering applications, and also that of an application interfering with an unexpired patent. "Whenever an application shall be made for a patent, which, in the opinion of the commissioner, would interfere with any other patent for which an application may be pending, or with any other unexpired patent which shall have been granted, it shall be the duty of the commissioner to give notice thereof to such applicants or patentees, as the case may be; and if either shall be dissatisfied with the decision of the commissioner on the question of the priority of right, or invention, on a hearing thereof, he may appeal from such decision, on the like terms and conditions as are provided," in case of a rejection of an application on other grounds, "and the like proceedings shall be had to determine which or whether either of the applicants shall be entitled to a patent as prayed for."

But in this case the decision of the examiners is not

¹ *Stearns v. Barrett*, 1 Mason's R. 153.

final, as it is in that of the rejection of a claim where there are not opposing parties. By the sixteenth section of the same act of 1836, " Whenever there shall be two interfering patents, or when a patent, on application, shall have been refused on an adverse decision of a board of examiners, on the ground that the patent applied for would interfere with an unexpired patent previously granted, any person interested in such patent, either by assignment or otherwise, in the one case, and any such applicant in the other case, may have remedy by bill in equity ; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge and declare either the patents void in whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent, or the inventions patented, and may also adjudge that such applicant is entitled, according to the provisions and principles of this act, to have and receive a patent for his invention, as specified in his claim, or for any part thereof, as the fact of priority of right or invention shall in any case be made to appear. And such adjudication, if it be in favor of the right of such applicant, shall authorize the commissioner to issue such patent, on his filing a copy of the adjudication, and otherwise complying with

the requisitions of this act. Provided, however, that no such judgment or adjudication shall affect the rights of any person except the parties to the action and those deriving title from or under them subsequent to the rendition of such judgment."

Sec. IV.—SIGNATURE.

Under the law of 1793, s. 1, patents were signed by the president. As the signing is a mere ministerial act, the responsibility as to granting the patent having been formerly with the secretary of state and attorney general, and being, under the act of 1836, with the commissioner of patents, there seems to be no particular propriety in assigning the duty of signing patents to the president; for considering it to be a grant, Congress may authorize any officer or person to execute the document by which it is made. The English patents are signed by the king, which was probably the precedent followed in the act of 1793 in assigning the same duty to the president. But as the president has many important duties, it seems to be expedient that the duty of subscribing patents should be assigned to some other officer, for the more convenient official despatch of this branch of the administration of the laws. The act of 1836, s. 5, accordingly provides

that patents issued from the patent office "shall be issued in the name of the United States, and under the seal of said office, and be signed by the secretary or state, and countersigned by the commissioner of said office."

By the act of Feb. 21, 1793, s. 1, letters patent before they were signed by the president, were required to be delivered to the attorney general to be examined; who, within fifteen days after such delivery, if he found them conformable to that act was to certify accordingly. The act of July 4th, 1836, omits this provision, and under that act, the letters patent are not required to be examined by the attorney general.

Sec. V.—RECORDING.

It is provided by the act of 1836, s. 5, that "patents shall be recorded together with the descriptions, specifications and drawings, in said [patent] office, in books to be kept for that purpose."² The recording

² It has been suggested that under the law 1793 it was contrary to law to issue the patent before it was recorded, though it was said to be a frequent practice so to issue patents. *North Am. Rev.* v. 23, p. 302. The act of 1836, by a change of phraseology, seems to avoid any objection to the validity of the patent on this score.

is in effect the publication of the patent, including the specification.

CHAPTER XIV.

Duration, Surrender, Renewal and Prolongation of Patents.

THE act of Congress of 1836, s. 5, following that of 1793, s. 1, provides that the commissioner of patents may make out letters-patent granting to the petitioner or petitioners therefor, his, her, or their administrators, executors or assigns, "*for a term not exceeding fourteen years*, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery."

Though the phraseology of the act of Congress is not literally inconsistent with the construction that the commissioner may exercise a discretion as to the period for which the patent is granted, yet in practice, under the similar provision of the statute of 1793, authorizing the secretary of state to cause patents to be issued, the

inventor, if he brought himself within the terms of the law as to the character of his invention, and the steps taken to obtain a patent, has been considered to be entitled to it, for the full term of fourteen years. Where the first patent is void through mistake or inadvertence in drawing up the specification, a new one may be taken out for the unexpired part of the period of fourteen years.¹

It has heretofore been a frequent practice in England and the United States, to apply to the legislature for the prolongation of the term of the patent. But the law of 1836, sect. 18, makes a new provision on this subject, that a patentee may make application to the commissioner in writing for the extension of his patent, setting forth the grounds of his application, and on payment of forty dollars into the treasury by the patentee, the commissioner shall cause the application to be published in one or more of the principal papers in Washington, and such other papers as he may deem proper, published in the section of the country most interested against the extension of the patent, with notice of the time and place of considering the application, that any person may appear and show cause why

¹ Supra, ch. XI. s. 10, act of 1836. *Grant v. Raymond*, 6 Pet. S. C. R. 218. *Ames v. Howard*, 1 Sumner's Rep. 482.

the extension should not be granted. And the secretary of state, the commissioner of patents, and the solicitor of the treasury, shall constitute a board to determine on the application, on hearing the evidence for and against the same, to which board the patentee must produce a statement in writing under oath of the expenditures for and value and profits of the invention. And if the board shall be satisfied that the patentee, without his fault or neglect, has failed to obtain, from the use and sale of the invention, a reasonable remuneration for the time, ingenuity and expense bestowed on the same, and the introduction thereof into use, and that the term should be extended, it shall be the duty of the commissioner to extend the patent for the additional term of seven years, by making a certificate to that effect on the patent, which certificate, and also that of said board, are to be recorded in the patent office, and such renewal shall extend for the benefit of assignees and grantees to the extent of their respective interests in the patent. But no grant of such extension is to be made after the expiration of the original term.

This provision is, no doubt, intended to supersede, in some degree, applications to the legislature for the extension of patents. Whether the legislature will entertain applications in the nature of an appeal from the decision of the board, remains to be determined.

CHAPTER XV.

Property in Patents and in Unpatented Secrets.

THE interest of a patentee in his patent is a species of personal property, created by grant under the authority of the State, and one that could not exist without a positive law for its support. It is true that an invention that could be used in secret, without an exposure of the process by the exhibition of the products, might be retained and its advantages enjoyed by the inventor, independently of a law for its protection. But the patent law does not deprive the inventor of any advantage of this description. He may still, notwithstanding the law, guard his secret and enjoy its advantages as he might have done before the law was enacted. He is not required to make and publish his specification. But then it would not be a species of *property*; it would, after all, be only his *secret*.¹

It is obviously impossible for an inventor to avail himself of the advantages of his improvement in this

¹ Godson, p. 171.

way in regard to most inventions, and it is very difficult to do it in any case. The process will sooner or later be divulged by the persons he employs, or will be liable to be detected in the results or products. The improvement made in the art of bleaching, mentioned in Tenant's case,² was practised six years before the patent was applied for. In other cases an inventor might expect to carry on his manufacture in secret for a still longer period. Dr. Swainson kept the secret of making his vegetable syrup for more than thirty years. In the few instances, however, in which there would be any chance of keeping the secret, there would be the constant inconvenience of the risk of detection and the consequent loss of the advantages of the discovery. Accordingly very few inventors decline the terms proposed by the patent laws for a temporary monopoly, as the price of the full disclosure of their discoveries, with the expectation of being able to reap the advantages of them for a longer period than that allowed by the statute by carrying on a secret manufacture.

There have been instances of suits and applications for injunctions, to protect inventors in the advantages of unpatented inventions, but without success. These proceedings have generally related to medicines.

² Dav. Pat. Cas. 429.

But though an inventor cannot assert a right of property in an invention independently of the patent law, still he has an *interest* in his invention for which he proposes to take out a patent, before he has actually taken it out, and such an interest as he may, to some purposes, vindicate in a suit. It has been held, in England, that a man has such a property in his invention before a patent is procured, that if he agree to inform another person of the secret, who binds himself in a penalty not to avail himself or take any undue advantage of the communication, he may maintain an action for the breach of that contract.³ In the United States, an agreement for the assignment of a patent right before the patent is taken out, is a matter of familiar practice, and its validity is recognised by the adjudged cases.⁴

So an agreement as to the interest that the parties to the agreement shall respectively have in the patent when taken out, has been held valid. Two persons, in order to secure to themselves the benefit of an invention, mutually covenanted that one should have the exclusive use and sale of the machines in Massachusetts and Rhode Island, and the other in the rest of the

³ *Smith v. Dickenson*, 3 Bos. & Pull. 630.

⁴ *Herbert v. Adams*, 4 Mason's R. 15.

United States, and that neither should use them in the district of the other, under the forfeiture of a certain sum for each machine so used. They subsequently obtained a joint patent for the invention. It was held, in a suit by the one against the other for a breach of the covenant, that if the patent was void, still the contract was valid. Wilde J. said, "the patent formed no part of the consideration of the contract, for it existed only in contemplation when the contract was made. The most that can be said is, that the contracting parties had, at the time, the expectation of securing the profitable use of their invention by obtaining a valid patent, and nothing is averred in the pleadings from which we can infer that this expectation has been defeated or is likely to be."⁵

CHAPTER XVI.

Assignment. Agreement to Assign.

THE eleventh section of the act of 1836 provides that "every patent shall be assignable in law, either as to the whole interest or any undivided part thereof,

⁵ *Stearns v. Barrett*, 1 Pick. 443.

by any instrument in writing ; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use, the thing patented within and throughout any specified part or portion of the United States, shall be recorded in the patent office within three months from the execution thereof."

This varies from the corresponding provision in the act of 1793, s. 4, which provided only for the recording of the assignment of the patent or a share of it, not for that of a license.

The inventor may assign his interest before taking out the patent,¹ for then he has a *right* which becomes *property* on the patent being taken out.

An assignment of the right, before the patent is taken out, will, according to the report of Dr. Jones, who is familiarly acquainted with the practice at the patent office, enable the assignee to take out the patent originally.² But this practice seems to be very questionable. The law requires the oath of the inventor himself, and contains no provision for issuing the patent to any other person except to his personal representatives in case of his decease. The effect how-

¹ *Herbert v. Adams*, 4 Mason, 15.

² *Digest of the Decisions on Patents*, 1831, No. 20, p. 26.

ever, of taking out the patent in the name of the inventor and recording the assignment previously made, is the same as issuing the patent in the name of the assignee.³

As between the parties to the assignment, it has been held in Massachusetts to be valid without being recorded.⁴ But, at least, third parties are not liable to be affected by an unrecorded assignment, since to admit them to be so, would render the provision for the recording nugatory. In order to enable the assignee to bring, or join in, a suit upon the patent right, it is necessary that the assignment should be recorded.

The defendant covenanted to assign to the plaintiff a sixteenth part of a patent right to a machine for cutting files, of which one Hatch was the inventor and patentee; and on receiving an assignment thereof from Hatch, transferred it to the plaintiff, without having first caused Hatch's assignment to be registered in the office of the secretary of state; this was held not to be a breach of the covenant. The court said, that it was for the plaintiff to cause the assignment of Hatch to be registered, as in cases of conveyance of real estate

³ *Herbert v. Adames*, 4 Mason R. 15.

⁴ *Morril v. Worthington*, 14 Mass. R. 389.

which the purchaser always procures to be recorded ; and that the defendant might legally assign the right which he acquired from Hatch, before such registry was made.⁵

A question on the construction of an assignment, whether it granted the right of one machine only, or that of making, using and vending any number, has been brought before the Supreme Court in Maine. The defendants conveyed to the plaintiffs " four clap-board machines and two shingle machines, in Dwight and Stone's building, in Livermore, on Androscoggin river ; and likewise the patent right for Livermore and Jay, all that is east of the Androscoggin river, and the town of Dixfield ; we sell all the above machinery, and right for the above towns, to make, use and vend to others to use, during the term of the patent, which is fourteen years from September 3, 1813." It was contended that only one patent right was intended to be conveyed ; to be applied, so far as it was applicable, to both the kinds of machine sold. But it was held, that this was a conveyance not only of the clapboard and shingle machines in Stone's building, and the right to use them, but also of the patent right to construct

⁵ Morrell v. Worthington, 14 Mass. R. 389.

and use machines of *both* descriptions within the territory described in the conveyance.⁶

Where the patentee took a lease of a shop in which was erected a machine patented by himself, with an agreement in the lease to deliver up the premises, including the machine, at the end of the term, in good condition to the lessor, Mr. Justice Washington ruled that this was the consent of the patentee in writing that the lessor should use the machine, himself, or by his servants, or let it to others to be used.⁷

In case of an assignment of a right, under a void patent, the question occurs, whether the agreed price can be recovered by the vendor of the purchaser, or, in case of payment, whether the amount paid can be recovered back by the purchaser on discovering that the patent is void. It has not been held in any case that, on such a sale, the agreed price can be recovered of the purchaser, and the vendor has failed in an action brought to recover it.⁸

But in another case, where the purchaser has brought an action to recover back the price after having paid it, and after using the invention and enjoying the advan-

⁶ *Judkins v. Earl*, 7 Greenl. 9.

⁷ *Reutgen v. Kanowrs and Grant*, 1 Wash. C. C. R. 168.

⁸ *Hayne v. Maltby*, 3 T. R. 436.

tages of it, there being good faith and an honest intention on the part of the vendor, who, supposes that he had a good right, the decisions have been against the purchaser.¹⁴

CHAPTER XVII.

Infringement.

Sec. 1. *Definition in the Law. Devising.*

2. *Making.*

3. *Using.*

4. *Selling.*

5. *Identity of Thing Used or Sold, and that Patented. Difference in Form and Proportions merely. Infringement of a Combination—of a Part.*

SEC. I.—DEFINITION IN THE LAW. DEVISING.

THOUGH an inventor, having a right to take out a patent, may assign such patent before taking it out, so that the assignment may operate on the patent when

¹⁴ Taylor v. Hare, 4 B. & P. 260.

taken out, yet he has not such a property as can be the subject of an infringement.¹

The fifth section of the act of 1793, which section was repealed in 1800, described it to be an infringement to "make, devise, and use, or sell" the thing invented. There was some ambiguity in this description, which was cleared up in the fourth section of the act of 1800, in which it was provided that, "where any person, without the consent of the patentee, his or her executors, &c. first obtained in writing, should make, devise, use or sell the thing whereof the exclusive right was secured to the patentee by patent, such person so offending should forfeit," &c.

The act of 1836, by which all the preceding acts have been repealed, gives no description of what shall be an infringement, otherwise than by providing for damages in case of "making, using or selling" the thing patented,² nor is any such description necessary, since the patent itself, in the form prescribed by that act, in terms grants to the applicant, "for a term not exceeding fourteen years, the full and exclusive right and liberty of making, using, and vending to others to be used, the invention or discovery."³ The form of

¹ *Dixon v. Thayer*, 4 Wash. C. C. R.

² Section 14.

³ Section 5.

the patent, under the former law, granted to the patentee the exclusive right of "making, constructing, using and vending to others to be used." The change made by the law of 1836 is in dropping the word *constructing*, which was immaterial, since its meaning is comprehended in *making*.

And so the omission of the word *devising*, which was used in the act of 1793, in describing an infringement, is unquestionably an improvement, on account of its ambiguity; and because the only practical meaning that could be given it is comprehended in the word *making*.

Sec. II.—MAKING.

It has been held by Mr. Justice Story, that the making of a patented machine for use or sale, though it were, in fact, neither used nor sold, is an infringement, for which, however, only nominal damages can be recovered, but that the making merely for experiments or philosophical purposes is not an infringement.⁴

Sec. III.—USING.

A use of the patented article is a direct and unquestionable infringement. We are here speaking of

⁴ *Whittemore v. Cutter*, 1 Gall. R. 429.

the use of the thing itself, which is the subject of the patent, not that of its products. A patent is, as has been explained in its place, an exclusive right to the practice or use of a certain art, process, contrivance or principle, combined with, and *embodied in*, material substances. The art, contrivance or design, considered abstractly, is not itself patentable, or an infringement of a patent. It is only in its production, in combination with materials, that it is either patentable itself, or a violation of a patent right. In a patented instrument or piece of machinery, the subject of the patent exists, and is visible and tangible, and admits of being possessed and delivered distinctly, and independently of its products. But when a composition of matter is the thing patented, the subject of the patent is identified with its products,—or rather a specimen of the product, or the only vendible thing which it is the object of the invention to supply, is, at the same time, a specimen of the invention itself. Whereas in the case of an instrument or machine, one object of the invention is to produce the instrument or machine itself, another to produce its products. The inventor of a loom may propose a profit on the sale of it, as well as on the sale of its products. So, again, a steam engine, like a loom, is invented to be used as an instrument until it is worn out ; and in this respect, both differ from a pa-

tent medicine and many chemical compositions, which are consumed or destroyed at once in the use.

Now, considering the *use* of the thing patented to be an infringement of the patent right, is there any difference in this respect between these different kinds of articles? Is it equally an infringement to use a patented medicine, which is destroyed in the use, or a nail-machine, loom or steam-engine, which will last a long time? The answer to this question undoubtedly is, that the use in either case is equally an infringement.

What, then, is the *use*; and who may be said to *use* the article? In the case of a patented paint, can the lessee, who occupies a house painted with the patented article, be said to use it? or can the hirer or purchaser of a chaise, varnished with patented varnish, be said to use the varnish? In either case we shall readily answer in the negative. One could not, with propriety, put to such a person the question, What paint or varnish do you use? The question can be properly addressed only to the person who selects and *applies* the article. He is the person who *uses* it. So, in case of a patented medicine prescribed, selected and administered to the patient by others without any act of his own; the doctor or the apothecary, and not the patient, *uses* the article, in the sense intended by the statute. It is otherwise in regard to lasting articles. A

cultivator uses a plough, and a manufacturer a loom, and so they, no less than the vendor, infringe the patent right.

We then come to a long series of patented improvements, which are, to a greater or less extent, incorporated with, or appendages to, other articles of which the subject of the patent is an ingredient or part; such, for instance, as a steam-valve. In these cases it certainly cannot be said that the person who uses the article to which the improvement is attached does not use the improvement; for this construction would deprive the greater number of patentees of all remedy for the use of their inventions, and leave them only to pursue the vendors, which would be, in effect, almost to repeal this part of the statute. Such an appendage seems to stand upon the same footing, in this respect, as an article which may be used independently of others. The party who uses the principal thing uses the accessory; and seems to be liable for an infringement of the patent for it.

A mere contract to purchase the articles, produced by the instrument, is not a constructive use of it by the purchaser, within the statute.*

A case of this description occurred in Maryland, in relation to Keplinger's instrument for the manufacture

* This is the rule also in France, Renouard on Patents, c. 5, p. 214.

of wire watch chains, which had been assigned to Gray and Osgood. About the time of the patent being taken out, Mr. De Young agreed with Hatch and Kirkner to make five gross of such chains for him ; he to furnish stock and materials, to be charged to Hatch and Kirkner, at the cost, and to pay at a certain rate per dozen for the chains when manufactured. A large quantity was manufactured and delivered under the contract. The makers used Mr. Keplinger's patented instrument, in the manufacture, and it appeared from the evidence, that Hatch and Kirkner intended to use the instrument at the time of making the contract, and that De Young knew of such intention ; and that in the course of the manufacture and delivery of the articles, he knew of their using the instrument, and approved of it.

The question in this case was, whether De Young was a partner with Hatch and Kirkner, in the use of the machine, and the transaction a mere cloak to give De Young the benefit of the use of it ; or, as the contract imported, a mere purchase of the articles by De Young, of Hatch and Kirkner, they being left to manufacture them as they should choose ; upon which latter construction of the facts the jury were instructed to give their verdict for the defendant, which they did.*

* Keplinger v. De Young, 10 Wheat. 358.

There can be no question of the accuracy of this verdict, upon such a construction of the facts, since to hold that every person who buys an article produced by the unlicensed use of a patented instrument, is an infringer of the patent right, would expose every purchaser of an article at the shops, to a suit by some patentee. But if the evidence had shown that the contracting parties were, in fact, partners, or that the contract was made for the purpose of enabling De Young, by hiring the use of the instrument, or otherwise, to reap the benefit or a part of the benefit of violating the patent right, and at the same time evade the penalty, and leave the patentee to seek his remedy against workmen who had no means of making good the damage, it would, as the court expressly held, have been an infringement on his part.

A use of the patented article merely for philosophical experiment, or for the purpose of ascertaining "the verity and exactness of the specification," is not an infringement.⁷

In a case before Mr. Justice Washington, he seemed to consider the use for the purpose of trying the practical utility, to be an infringement. It was relied upon in the argument, that a machine of one Christian, for moulding biscuit, had never been *used* by the defendant

⁷ *Whittemore v. Cutter*, 1 Gall. R. 429.

within the true meaning of that expression, in the patent act. He said, "It is admitted that an experiment was made with it, but this, it is argued, was not such a using as the act intends. It surely cannot be denied that the act of making crackers with it, amounted to a using of it according to the common and accepted meaning of that phrase; and I am quite at a loss to imagine how this meaning can be varied by the particular motive which induced the inventor so to employ the machine. I can discover nothing in the patent act which will authorize the court to depart from the ordinary meaning of this expression, and to declare that a machine which is put into operation for the sole purpose of trying its practical utility, is not used within the meaning and intent of the sixth section of the act of 1793,"¹⁸

This doctrine is at variance with that laid down by Mr. Justice Story, cited above. Certainly Mr. Justice Washington must be wrong as to the court or jury having nothing to do with the motive for using the machine.

A patent cannot be infringed by any thing done before it is granted; other persons than the inventor may, therefore, use as well as make the machine in the United States before the issuing of the patent, without

¹⁸ *Watson v. Bladen*, 4 Wash. C. C. R. 583.

being liable to damages. But after the granting of the patent, if it be valid, (as it may be, in such case, in the United States, though it would not be so in England,) the party who has thus previously made and used the machine, which is the subject of it, cannot continue to use it, and his continuing to do so will be an infringement.⁹

So where a patent, first taken out, is void, on account of a formal defect in the specification, and on this account is surrendered and a new one taken out, but previously to the granting of the new patent, a machine is erected by another person, the party so erecting the machine, cannot continue to use it after the second patent is taken out, and his so continuing to use it will be an infringement.¹⁰ That is, he stands upon precisely the same footing as a person who erects and uses a machine before the first patent is taken out, when such first patent is valid.

Nor is any notice necessary, in such case, from the patentee to the party who has erected and begun to use the machine before the granting of the new patent.

⁹ *Ames v. Howard*, 1 Sumner's Rep. 482. And see *Evans v. Weiss*, 3 Hall's Law Journal, 180; Wash. C. C. R. 12; *Fessenden on Patents*, 52.

¹⁰ *Ames v. Howard*, 1 Sumner's R. 482.

Where a patent for an improvement in a machine for making paper first taken out, was surrendered, and a new one taken out, and before the second patent was issued, another person had erected the machine, and continued to use it after the second patent was issued ; in an action for an infringement of the patent right, the defendants objected that they were not liable until after notice from the patentee. Mr. Justice Story, however, ruled otherwise, and, on a motion for a new trial, said, " I am by no means prepared to say that any notice is, in cases of this sort, ever necessary to any party who is actually using a machine in violation of a patent right." But supposing notice to be necessary, he considered the knowledge by the defendants that the first patent had been taken out, to be, in effect, such notice. He said, " whoever erects and uses a patented machine, does it at his peril ; he takes upon himself all the chances of its being originally valid, or of its being afterwards made so, by a surrender of it, and granting of a new patent, which may cure any defects, and is grantable according to the principles of law."¹¹

¹¹ Ames v. Howard, 1 Sumner's R. 482.

Sec. IV.—SELLING.

What is a sale of the patented article so as to be an infringement of the patent, needs not to be dwelt upon at great length. Though questions may be made as to what amounts to a sale, and as to the party who is to be considered the vendor, it would be a digression to go into a minute investigation of the subject in this place. Undoubtedly, the principal, who authorizes his agent to sell for his benefit, is an infringer of the patent. And so, also, is the agent, for the orders of the principal are no excuse to him for the violation of another's right.

It has already been noticed, that a sale by operation or authority of law, as in case of bankruptcy or insolvency, is not an infringement of the patentee's right, where the debtor had an assignable interest.¹²

Sec. V.—IDENTITY OF THING MADE, USED OR SOLD, WITH THAT PATENTED. DIFFERENCE IN FORM AND PROPORTIONS MERELY. INFRINGEMENT OF A COMBINATION—OF A PART.

The making, using or selling of a thing, is, of course, not a violation of a patent, unless it be the thing, or

¹² *Supra.* ch. xvi.

one of the things patented. If it vary from the patented article, merely in form or proportions, but be substantially and essentially the same, it will be a violation of the patentee's right. This doctrine was directly involved in the provision of the act of 1793, by which a variation merely in form or proportions, was declared not to be a new invention, and so not patentable; that is, conversely, it is, within the meaning of the law, the same thing, and so is an infringement.

"What constitutes form, and what principle," Mr. Justice Washington remarks, "is often a nice question to decide; and upon none are the witnesses who are examined in patent cases, even those who are skilled in the particular art, more apt to disagree. It seems to me that the safest guide to accuracy in making the distinction is, first to ascertain what is the result to be obtained by the discovery; and whatever is essential to that object, independent of the mere form and proportions of the thing used for the purpose, may generally, if not universally, be considered as the principles of the invention."¹²

In a suit for an infringement of a patent for a carriage wheel, whereby the load was suspended at the

¹² Treadwell and Watson v. Bladen, 4 Wash. C. C. R. 706. And see Dixon v. Mayor, 4 Wash. C. C. R. 63.

circumference on the top, instead of being supported, as usual, at the centre, Mr. Justice Patteson instructed the jury, that it was not enough to constitute an infringement, that the defendant had constructed a wheel on the suspension principle, because that principle might be applied in various ways; but if the jury thought it was applied in the same way, then a variation in two or three circumstances in the defendant's wheel, from the description in the plaintiff's specification, would not prevent its being an infringement.¹⁴

On the subject of the infringement of a part of the rights secured by patent, Mr. Justice Story says, "Where the inventor claims several distinct and independent improvements in the same machine, and procures a patent for them in the aggregate, he is entitled to recover against any person who shall use any one of the improvements, so patented, notwithstanding there has been no violation of the other improvements."¹⁵

A patent for a combination merely, does not, as we have seen, give the exclusive privilege of using the separate things combined,¹⁶ and consequently the use,

¹⁴ *Jones v. Pearce*, Gods. Sup. 11.

¹⁵ *Moody v. Fiske*, 2 Mason 112; and see *Hill v. Thompson*, 2 J. B. Moore, 424; *Bovill v. Moore*, Dav. Pat. Cas. 361.

¹⁶ *Supra*, and see *Brunton v. Hawkes*, 4 B. & Ald. 549.

making or selling of any separate parts, less than the whole combination, is not an infringement.¹⁷

A patentee, having taken out a patent for the combined operation of five parts, afterwards took out a separate patent for two of them, as being an improvement on a machine patented by another patentee. Held by Washington J. that this was not taking out two patents for the same thing, one being for a combination, and the other for a part of the things combined.¹⁸ It follows, accordingly, that if the patent is for a combination merely, the use of any one or more of the things combined, but not of the whole, is not an infringement of the patent right for the combination.

¹⁷ *Moody v. Fisk*, 2 Mason's R. 112.

¹⁸ *Treadwell and Watson v. Bladen*, 4 Wash. C. C. R. 709.

APPENDIX.

Act of July 4th, 1836, c. 357.

An act to promote the progress of useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.

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|---|---|
| <p>Sec. 1. Commissioner.</p> <p>2. Other officers and clerks.</p> <p>3. Oath & bonds of officers.</p> <p>4. Seal. Certified copies of records and papers to be evidence.</p> <p>5. The patent.</p> <p>6. The specification. Drawings. Models. Oath.</p> <p>7. When the commissioner shall grant a patent. When he shall refuse. Reasons to be given for refusal. Return of part of fee if application withdrawn. Board of examiners appointed if the application is persisted in. Proceedings. Fees of examiners.</p> <p>8. Applications interfering with others, or with existing patents, referred to examiners. A patent taken out abroad within six months before the filing the specification, for the same invention, is no ground of objection. Patent</p> | <p>to be dated at time of filing specification, not over six months back, in case of request. Specification to be filed in secret archives of patent office, on request, not more than one year.</p> <p>Sec. 9. Fees to be paid by patentees.</p> <p>10. Representatives of patentee entitled to take out patent in case of his decease.</p> <p>11. Assignments.</p> <p>12. Caveat.</p> <p>13. Surrender of patent on account of defective specification. New patent issued.</p> <p>14. Damages for an infringement.</p> <p>15. Plea of general issue. Notice of grounds of defence. Evidence. Notice of names of persons who have known or used the invention, and places where. Use in a for-</p> |
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eign country of an invention not patented or described in any printed publication. Costs in case of judgment against plaintiff on ground of his claiming too much, and of a violation of the part rightfully claimed and truly described.	or with existing patents.
Sec. 16. Remedy in equity in case of applications interfering with others	Sec. 17. Jurisdiction of patent causes.
	18. Prolongation of the term of a patent.
	19. Library of patent office.
	20. Arrangement of the models in the patent office.
	21. Repeal of former acts. Suits pending at the time of passing this act, to be prosecuted.

§ 1. *Be it enacted, &c.* That there shall be established and attached to the department of state, an office to be denominated the patent office; the chief officer of which shall be called the commissioner of patents, to be appointed by the president, by and with the advice and consent of the senate, whose duty it shall be, under the direction of the secretary of state, to superintend, execute, and perform, all such acts and things touching and respecting the granting and issuing of patents for new and useful discoveries, inventions, and improvements, as are herein provided for, or shall hereafter be, by law, directed to be done and performed, and shall have the charge and custody of all the books, records, papers, models, machines, and all other things belonging to said office. And said commissioner shall receive the same compensation as is allowed by law to the commissioner of the Indian department, and shall be entitled to send and receive letters and packages by mail, relating to the business of the office, free of postage.

§ 2. That there shall be, in said office, an inferior officer, to be appointed by the said principal officer, with the approval of the secretary of state, to receive an annual salary of seventeen hundred dollars, and to be called the chief clerk of the patent office; who, in

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all cases during the necessary absence of the commissioner, or when the said principal office shall become vacant, shall have the charge and custody of the seal, and of the records, books, papers, machines, models, and all other things belonging to the said office, and shall perform the duties of commissioner during such vacancy. And the said commissioner may also, with like approval, appoint an examining clerk, at an annual salary of fifteen hundred dollars; two other clerks, at twelve hundred dollars each, one of whom shall be a competent draughtsman; one other clerk at one thousand dollars; a machinist at twelve hundred and fifty dollars, and a messenger at seven hundred dollars. And said commissioner, clerks, and every other person appointed and employed in said office, shall be disqualified and interdicted from acquiring or taking, except by inheritance, during the period for which they shall hold their appointments, respectively, any right or interest, directly or indirectly, in any patent for an invention or discovery which has been, or may hereafter be, granted.

§ 3. That the said principal officer, and every other person to be appointed in the said office, shall, before he enters upon the duties of his office or appointment, make oath or affirmation, truly and faithfully to execute the trust committed to him. And the said commissioner and the chief clerk shall also, before entering upon their duties, severally give bonds with sureties to the treasurer of the United States, the former in the sum of ten thousand dollars, and the latter in the sum of five thousand dollars, with condition to render a true and faithful account to him or his successor in office, quarterly, of all moneys which shall be by them respectively received for duties on patents, and for copies of records and drawings, and all other moneys received by virtue of said office.

§ 4. That the said commissioner shall cause a seal

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of office to be made and provided for the said office, with such device as the president of the United States shall approve; and copies of any records, books, papers, or drawings, belonging to the said office, under the signature of the said commissioner, or, when the office shall be vacant, under the signature of the chief clerk, with the said seal affixed, shall be competent evidence in all cases in which the original records, books, papers or drawing, could be evidence. And any person making application therefor, may have certified copies of the records, drawings, and other papers deposited in said office, on paying, for the written copies, the sum of ten cents for every page of one hundred words; and for copies of drawings, the reasonable expense of making the same.

§ 5. That all patents issuing from said office shall be issued in the name of the United States, and under the seal of said office, and be signed by the secretary of State, and countersigned by the commissioner of the said office, and shall be recorded, together with the descriptions, specifications, and drawings, in the said office, in books to be kept for that purpose. Every such patent shall contain a short description or title of the invention or discovery, correctly indicating its nature and design, and in its terms grant to the applicant or applicants, his or their heirs, administrators, executors, or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery, referring to the specifications for the particulars thereof, a copy of which shall be annexed to the patent, specifying what the patentee claims as his invention or discovery.

§ 6. That any person or persons having *discovered* or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture,

or composition of matter, not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or on sale, with his consent or allowance, as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the commissioner of patents, expressing such desire, and the commissioner, on due proceedings had, may grant a patent therefor. But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of any machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery. He shall, furthermore, accompany the whole with a drawing or drawings, and written references, where the nature of the case admits of drawings, or with specimens of ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention or discovery is of a composition of matter; which descriptions and drawings, signed by the inventor and attested by two witnesses, shall be filed in the patent office; and shall moreover furnish a model of his invention, in all cases which admit of a representation by model, of a convenient size to exhibit advantageously its several parts. The applicant shall also make oath or

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affirmation that he does verily believe that he is the original and first inventor or discoverer of the art, machine, composition, or improvement, for which he solicits a patent, and that he does not know or believe that the same was ever before known or used, and also of what country he is a citizen; which oath or affirmation may be made before any person authorized by law to administer oaths.

§ 7. That, on the filing of any such application, description, and specification, and the payment of the duty hereinafter provided, the commissioner shall make, or cause to be made, an examination of the alleged new invention or discovery; and if, on any such examination, it shall not appear to the commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale with the applicant's consent or allowance, prior to the application, if the commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor. But whenever, on such examination, it shall appear to the commissioner that the applicant was not the original and first inventor or discoverer thereof, or that any part of that which is claimed as new had before been invented or discovered, or patented, or described in any printed publication in this or any foreign country, as aforesaid, or that the description is defective and insufficient, he shall notify the applicant thereof, giving him, briefly, such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of the invention or discovery which is new. In every such case, if the applicant shall elect to withdraw his application, relinquishing his claim to

the model, he shall be entitled to receive back twenty dollars, part of the duty required by this act, on filing a notice in writing of such election in the patent office, a copy of which, certified by the commissioner, shall be a sufficient warrant to the treasurer for paying back to the said applicant the said sum of twenty dollars. But if the applicant in such case shall persist in his claim for a patent, with or without any alteration of his specification, he shall be required to make oath or affirmation anew, in manner, as aforesaid. And if the specification and claim shall not have been so modified as, in the opinion of the commissioner, shall entitle the applicant to a patent, he may, on appeal, and upon request in writing, have the decision of a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the secretary of State, one of whom, at least, to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture, or branch of science to which the alleged invention appertains; who shall be under oath or affirmation for the faithful and impartial performance of the duty imposed upon them by said appointment. Said board shall be furnished with a certificate, in writing, of the opinion and decision of the commissioner, stating the particular grounds of his objection, and the part or parts of the invention which he considers as not entitled to be patented. And the said board shall give reasonable notice to the applicant, as well as to the commissioner, of the time and place of their meeting, that they may have an opportunity of furnishing them with such facts and evidence as they may deem necessary to a just decision; and it shall be the duty of the commissioner to furnish to the board of examiners such information as he may possess relative to the matter under their consideration. And on an examination and consideration of the matter by such board, it shall be in their

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power, or of a majority of them, to reverse the decision of the commissioner, either in whole or in part, and their opinion being certified to the commissioner, he shall be governed thereby, in the further proceedings to be had on such application: Provided, however, That before a board shall be instituted in any such case, the applicant shall pay to the credit of the treasury, as provided in the ninth section of this act, the sum of twenty-five dollars, and each of said persons so appointed shall be entitled to receive for his services in each case, a sum not exceeding ten dollars, to be determined and paid by the commissioner out of any moneys in his hands, which shall be in full compensation to the persons who may be so appointed, for their examination and certificate as aforesaid.

§8. That whenever an application shall be made for a patent which, in the opinion of the commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the commissioner to give notice thereof to such applicants, or patentees, as the case may be; and if either shall be dissatisfied with the decision of the commissioner on the question of priority of right or invention, on a hearing thereof, he may appeal from such decision, on the like terms and conditions as are provided in the preceding section of this act; and the like proceedings shall be had, to determine which or whether either of the applicants is entitled to receive a patent as prayed for. But nothing in this act contained shall be construed to deprive an original and true inventor of the right to a patent for his invention, by reason of his having previously taken out letters-patent therefor in a foreign country, and the same having been published, at any time, within six months next preceding the filing of the specification and drawing. And whenever the applicant

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shall request it, the patent shall take date from the time of the filing of the specification and drawings, not however exceeding six months prior to the actual issuing of the patent; and on like request, and the payment of the duty herein required, by any applicant, his specification and drawings shall be filed in the secret archives of the office until he shall furnish the model and the patent be issued, not exceeding the term of one year; the applicant being entitled to notice of interfering applications.

§ 9. That before any application for a patent shall be considered by the commissioner as aforesaid, the applicant shall pay into the treasury of the United States, or into the patent office, or into any of the deposit banks to the credit of the treasury, if he be a citizen of the United States, or an alien and shall have been resident in the United States for one year next preceding, and shall have made oath of his intention to become a citizen thereof, the sum of thirty dollars; if a subject of the king of Great Britain, the sum of five hundred dollars; and all other persons the sum of three hundred dollars; for which payment duplicate receipts shall be taken, one of which to be filed in the office of the treasurer. And the moneys received into the treasury under this act, shall constitute a fund for the payment of the salaries of the officers and clerks herein provided for, and all other expenses of the patent office, and to be called the patent fund.

§ 10. That where any person hath made, or shall have made, any new invention, discovery, or improvement, on account of which a patent might by virtue of this act be granted, and such person shall die before any patent shall be granted therefor, the right of applying for and obtaining such patent shall devolve on the executor or administrator of such person, in trust for the heirs at law of the deceased, in case he shall have died intestate; but if otherwise,

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then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations, and restrictions, as the same was held, or might have been claimed or enjoyed by such person in his or her lifetime; and when application for a patent shall be made by such legal representatives, the oath or affirmation provided in the sixth section of this act, shall be so varied as to be applicable to them.

§ 11. That every patent shall be assignable in law, either as to the whole interest, or any undivided part thereof, by any instrument in writing; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use and to grant to others to make and use the thing patented within and throughout any specified part or portion of the United States, shall be recorded in the patent office within three months from the execution thereof, for which the assignee or grantee shall pay to the commissioner the sum of three dollars.

§ 12. That any citizen of the United States, or alien who shall have been resident in the United States one year next preceding, and shall have made oath of his intention to become a citizen thereof, who shall have invented any new art, machine, or improvement thereof, and shall desire further time to mature the same, may, on paying to the credit of the treasury, in manner as provided in the ninth section of this act, the sum of twenty dollars, file in the patent office a caveat, setting forth the design and purpose thereof, and its principal and distinguishing characteristics, and praying protection of his right, till he shall have matured his invention; which sum of twenty dollars, in case the person filing such caveat shall afterwards take out a patent for the invention therein mentioned, shall be considered a part of the sum herein required for the same. And such caveat shall be filed in the confidential archives of the office, and preserved in secrecy.

And if application shall be made by any other person within one year from the time of filing such caveat, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the commissioner to deposite the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice, by mail, to the person filing the caveat, of such application, who shall, within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specifications, drawings, and model; and if, in the opinion of the commissioner, the specifications of claim interfere with each other, like proceedings may be had in all respects as are in this act provided in the case of interfering applications; Provided, however, That no opinion or decision of any board of examiners, under the provisions of this act, shall preclude any person interested in favor of or against the validity of any patent which has been or may hereafter be granted, from the right to contest the same in any judicial court in any action in which its validity may come in question.

§ 13. That whenever any patent which has heretofore been granted, or which shall hereafter be granted, shall be inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his own invention, more than he had or shall have a right to claim as new; if the error has, or shall have arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor for the same invention, for the residue of the period then unexpired for which the original patent was granted, in accordance with the patentee's corrected description and specification. And in case of his death, or any

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assignment by him made of the original patent, a similar right shall vest in his executors, administrators, or assignees. And the patent, so reissued, together with the corrected description and specification, shall have the same effect and operation in law, on the trial of all actions hereafter commenced for causes subsequently accruing, as though the same had been originally filed in such corrected form, before the issuing out of the original patent. And whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars, as herein before provided, have the same annexed to the original description and specification; and the commissioner shall certify, on the margin of such annexed description and specification, the time of its being annexed and recorded; and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification.

§ 14. That whenever, in any action for damages, for making, using, or selling the thing whereof the exclusive right is secured by any patent heretofore granted, or by any patent which may hereafter be granted, a verdict shall be rendered for the plaintiff in such action, it shall be in the power of the court to render judgment for any sum above the amount found by such verdict as the actual damages sustained by the plaintiff, not exceeding three times the amount thereof, according to the circumstances of the case, with costs; and such damages may be recovered by action on the case, in any court of competent jurisdiction, to be brought in the name or names of the person or persons interested, whether as patentee,

assignees, or as grantees of the exclusive right within and throughout a specified part of the United States.

§ 15. That the defendant in any such action shall be permitted to plead the general issue, and to give this act and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, tending to prove that the description and specification filed by plaintiff does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public, or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, or that it had been described in some public work anterior to the supposed discovery thereof, by the patentee, or had been in public use, or on sale with the consent and allowance of the patentee before his application for a patent, or that he had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same; or that the patentee, if an alien at the time the patent was granted, had failed and neglected for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued; in either of which cases judgment shall be rendered for the defendant, with costs. And whenever the defendant relies in his defence on the fact of a previous invention, knowledge or use of the thing patented, he shall state in his notice of special matter the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing and where the same had been used;

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Provided, however, that whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery or any part thereof having been before known or used in any foreign country, it not appearing that the same or any substantial part thereof had before been patented or described in any printed publication. And provided, also, That whenever the plaintiff shall fail to sustain his action on the ground that in his specification of claim is embraced more than that of which he was the first inventor, if it shall appear that the defendant had used or violated any part of the invention justly and truly specified and claimed as new, it shall be in the power of the court to adjudge and award as to costs as may appear to be just and equitable.

§ 16. That whenever there shall be two interfering patents, or whenever a patent on application shall have been refused on an adverse decision of a board of examiners, on the ground that the patent applied for would interfere with an unexpired patent previously granted, any person interested in any such patent, either by assignment or otherwise, in the one case, and any such applicant in the other case, may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge and declare either the patents void in the whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent or the inventions patented, and may also adjudge that such applicant is entitled, according to the principles and provisions of this act, to have and receive a patent for his invention, as specified in his

claim, or for any part thereof, as the fact of priority of right or invention shall in any such case be made to appear. And such adjudication, if it be in favor of the right of such applicant, shall authorize the commissioner to issue such patent, on his filing a copy of the adjudication, and otherwise complying with the requisitions of this act. Provided, however, that no such judgment or adjudication shall affect the rights of any person except the parties to the action and those deriving title from or under them subsequent to the rendition of such judgment.

§ 17. That all actions, suits, controversies, and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States, or any district court having the powers and jurisdiction of a circuit court; which courts shall have power upon bill in equity filed by any party aggrieved, in any such case, to grant injunctions according to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as said courts may deem reasonable: Provided, however, That from all judgments and decrees from any such court rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the supreme court of the United States, in the same manner and under the same circumstances as is now provided by law in other judgments and decrees of circuit courts, and in all other cases in which the court shall deem it reasonable to allow the same.

§ 18. That whenever any patentee of an invention or discovery shall desire an extension of his patent beyond the term of its limitation, he may make application therefor, in writing, to the commissioner of the

patent office, setting forth the grounds thereof; and the commissioner shall, on the applicant's paying the sum of forty dollars to the credit of the treasury, as in the case of an original application for a patent, cause to be published in one or more of the principal newspapers in the city of Washington, and in such other paper or papers as he may deem proper, published in the section of country most interested adversely to the extension of the patent, a notice of such application and of the time and place when and where the same will be considered, that any person may appear and show cause why the extension should not be granted. And the secretary of state, the commissioner of the patent office, and the solicitor of the treasury, shall constitute a board to hear and decide upon the evidence produced before them both for and against the extension, and shall sit for that purpose at the time and place designated in the published notice thereof. The patentee shall furnish to said board a statement, in writing, under oath, of the ascertained value of the invention, and of his receipts and expenditures, sufficiently in detail to exhibit a true and faithful account of loss and profit in any manner accruing to him from and by reason of said invention. And if, upon a hearing of the matter, it shall appear to the full and entire satisfaction of said board, having due regard to the public interest therein, that it is just and proper that the term of the patent should be extended, by reason of the patentee, without neglect or fault on his part, having failed to obtain from the use and sale of his invention, a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same, and the introduction thereof into use, it shall be the duty of the commissioner to renew and extend the patent, by making a certificate thereon of such extension, for the term of seven years from and after the expiration of the first term; which certificate, with a certificate

of said board of their judgment and opinion as aforesaid, shall be entered on record in the patent office ; and thereupon the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years. And the benefit of such renewal shall extend to assignees and grantees of the right to use the thing patented, to the extent of their respective interest therein : Provided, however, That no extension of a patent shall be granted after the expiration of the term for which it was originally issued.

§ 19. That there shall be provided for the use of said office, a library of scientific works and periodical publications, both foreign and American, calculated to facilitate the discharge of the duties hereby required of the chief officers therein, to be purchased under the direction of the committee of the library of congress. And the sum of fifteen hundred dollars is hereby appropriated, for that purpose, to be paid out of the patent fund.

§ 20. That it shall be the duty of the commissioner to cause to be classified and arranged, in such rooms or galleries as may be provided for that purpose, in suitable cases, when necessary for their preservation, and in such manner as shall be conducive to a beneficial and favorable display thereof, the models and specimens of compositions, and of fabrics and other manufactures and works of art, patented or unpatented, which have been, or shall hereafter be deposited in said office. And said rooms or galleries shall be kept open during suitable hours for public inspection.

§ 21. That all acts and parts of acts heretofore passed on this subject be, and the same are hereby repealed : Provided, however, That all actions and processes in law or equity, sued out prior to the passage of this act, may be prosecuted to final judgment and execution, in the same manner as though this act

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had not been passed, excepting and saving the application to any such action, of the provisions of the fourteenth and fifteenth sections of this act, so far as they may be applicable thereto. And provided, also, that all applications or petitions for patents pending at the time of the passage of this act, in cases where the duty has been paid, shall be proceeded with and acted on in the same manner as though filed after the passage hereof.

SPECIFICATION.

To all persons whom it may concern.

Be it known that I, the undersigned, S. C., of V., in the county of H., in the State of M., have invented [or discovered], a new and useful machine [invention or improvement, or composition of matter,] called [here give the title of the invention] of which the following is a full and exact description :

[Description of the invention.]

In testimony whereof, I the said S. C. hereto subscribe my name in the presence of the witnesses whose names are hereto subscribed, on the day of A. D. 18 .

Signed in our presence,

S. C.

A. B.

C. D.

ATTESTATION TO THE DRAWINGS.

The above is the drawing of [description of the invention] referred to in my specification, of the said improvement [machine or invention] dated at V. on the day of A. D. 18 .

In testimony whereof, I hereto subscribe my name on said day and year S. C.

Signed in presence of

A. B.

C. D.

FORM OF THE OATH.

State of M., County of H., ss.

On the day of A. D. 18 , before the subscriber, a justice of the peace in and for said county, and authorized by law to administer oaths, personally appeared S. C. and made oath [or affirmation] that he verily believes that he is the first and original inventor of the [improvement, machine, or composition of matter, &c.] above mentioned and described in the specification by him subscribed, and that he does not know or believe that the same was ever before known or used, and that he is a citizen of the United States.¹

FORM OF THE PETITION.

*To the Honorable Henry L. Ellsworth, Commissioner of Patents
of the United States.*

The petition of S. C., of V., in the County of H., and State of M., engineer, respectfully represents,

That your petitioner has invented a new and useful [machine, improvement, composition of matter,] which he verily believes was not known or used prior to his invention thereof; which has not heretofore been and is not now in public use or on sale with his consent or allowance as inventor thereof, an exclusive property wherein he is desirous of securing to himself and his legal representatives. He therefore prays that letters

¹ If he is an alien resident in the United States, who has made his declaration, &c. it should be so stated; or if an alien not domiciled in the United States, the country of which he is a subject should be stated.

patent of the United States may be granted to him therefor, vesting in him and his legal representatives the exclusive right to the same upon the terms and conditions expressed in the act [or acts] of congress in such case made and provided; the petitioner being a citizen of the United States, and having paid thirty dollars into the treasury of the United States, and having otherwise complied with the provisions of said act [or acts.] S. C.

V. Dec. 18 .

FORM OF THE PATENT.

WHEREAS L.

has alleged that he has invented a new and useful improvement [or machine, composition of matter, &c.] which he states has not been known or used before his application; has made oath that he is a citizen of the United States, [or subject of some foreign government,] that he verily believes that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the treasury of the United States the sum of dollars, and presented a petition to the commissioner of patents, signifying a desire of obtaining an exclusive property in the said improvement and praying that a patent may be granted for that purpose.

These are therefore to grant, according to law, to the said L. his heirs, administrators, or assigns, for the term of fourteen years from the day of one thousand eight hundred and the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said

improvement, a description whereof is given in the words of the said L. in the schedule hereunto annexed, and is made a part of these presents.

In testimony whereof, I have caused these letters to be made Patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand at the city of Washington, this day of in
in the year of our Lord one thousand
eight hundred and and of the
Independence of the United States of
America the

J. F. Secretary of State.

*Countersigned and Sealed with the }
Seal of the Patent Office. }*

Commissioner of Patents.

H. L. E.

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ADDENDA.—MAY, 1838.

Act of March 3d, 1837.

An act in addition to the act to promote the progress of science and useful arts.

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| <p>Sec. 1. Patents issued prior to Dec. 15, 1836, and assignments made, prior to that time, with specifications and drawings, recorded anew free of expense.—Clerks of courts of United States to transmit to patent office statement of authenticated copies; also copies required by the commissioner.</p> <p>2. Certified copies of such record evidence. No patent issued prior to Dec. 15, 1836, to be received in evidence after June 1, 1837, unless recorded anew—nor any assignment of such patent.</p> <p>3. New patents may be issued for those destroyed Dec. 15, 1836, or otherwise lost, on deposit of specification, drawing and model.</p> <p>4. Commissioner to procure duplicates of certain models, burnt Dec. 15, 1836. Expense not to exceed</p> | <p>100,000 dollars. Temporary Board of Commissioners for procuring duplicates, models, and making regulations for that purpose.</p> <p>Sec. 5. Surrender of a patent and reissue of divers patents instead thereof,—fee—surrender of patent dated prior to Dec. 15, 1836.—Addition, improvement or disclaimer by patentee or his assigns, not to be admitted to record until duplicate model and drawing of the thing originally intended, is furnished if required. Where model and drawing lost, no patent to issue until new ones furnished, if required. The Temporary Board of Commissioners to decide on compensation for models and drawings under this Section and Sect. 3.</p> <p>6. Patent to issue to assignee, assignment being first recorded. Applicant to</p> |
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furnish duplicate drawings.

Sec. 7. Disclaimer by proprietor of the whole patent or sectional interest therein, of part, where claim was through mistake too broad. Such disclaimer not to affect pending action except on question of unreasonable delay.

8. On application for an addition of an improvement, or return of patent for correction, and re-issue, the specification of claim under the patent to be subject to revision by the commissioner.

9. Where through inadvertence, the claim is too broad, the patent is valid for what is rightfully and rightly claimed, if clearly distinguishable. Suit on

such patent where previous disclaimer; unreasonable delay of such disclaimer.

Sec. 10. Agents for forwarding models and specimens to patent office.

11. Additional examining clerk, and copying clerk; temporary clerks.

12. When application by a foreigner is withdrawn under Sect. 7, of Act of July 4, 1836, two thirds of duty to be refunded.

13. Affirmation instead of oath.

14. Patent fund—how appropriated. Annual statement of expenditures. Annual list of patents granted. Annual list of patents which have become public property.

§ 1. *Be it enacted, &c.* That any person who may be in possession of, or in any way interested in, any patent for an invention, discovery, or improvement, issued prior to the fifteenth day of December, in the year of our Lord one thousand eight hundred and thirty-six; or in an assignment of any patent, or interest therein, executed and recorded prior to the said fifteenth day of December, may, without charge, on presentation or transmission thereof to the Commissioner of Patents, have the same recorded anew in the Patent Office, together with the descriptions, specifications of claim and drawings annexed or belonging to the same; and it shall be the duty of the Commissioner to cause the same, or any authenticated copy of the original record, specification, or drawing which he may obtain, to be transcribed and copied into books of record, to be kept for that purpose; and wherever a drawing was not originally annexed to the patent and referred to in the specification, any drawing produced as a delineation of the invention, being

verified by oath in such manner as the Commissioner shall require, may be transmitted and placed on file, or copied as aforesaid, together with the certificate of the oath; or such drawings may be made in the office, under the direction of the Commissioner, in conformity with the specification. And it shall be the duty of the Commissioner to take such measures as may be advised and determined by the Board of Commissioners provided for in the fourth section of this act, to obtain the patents, specifications, and copies aforesaid, for the purpose of being so transcribed and recorded. And it shall be the duty of each of the several clerks of the Judicial Courts of the United States; to transmit, as soon as may be, to the Commissioner of the Patent Office, a statement of all the authenticated copies of patents, descriptions, specifications, and drawings of inventions and discoveries made and executed prior to the aforesaid fifteenth day of December, which may be found on the files of his office; and also to make out and transmit to said Commissioner, for record as aforesaid, a certified copy of every such patent, description, specification, or drawing, which shall be specially required by said Commissioner.

§ 2. That copies of such record and drawings, certified by the Commissioner, or, in his absence, by the chief clerk, shall be prima facie evidence of the particulars of the invention and of the patent granted therefor, in any judicial court of the United States, in all cases where copies of the original record or specification and drawings would be evidence, without proof of the loss of such originals; and no patent issued prior to the aforesaid fifteenth day of December shall, after the first day of June next, be received in evidence in any of the said courts in behalf of the patentee or other person who shall be in possession of the same, unless it shall have been so recorded anew, and a drawing of the invention, if separate from the patent, verified as aforesaid, deposited in the Patent Office; nor shall any written assignment of any such patent, executed and recorded prior to the said fifteenth day of December, be received in evidence in any of the said courts in behalf of the assignee or other person

in possession thereof, until it shall have been so recorded anew.

§ 3. That whenever it shall appear to the Commissioner that any patent was destroyed by the burning of the Patent Office building on the aforesaid fifteenth day of December, or was otherwise lost prior thereto, it shall be his duty, on application therefor by the patentee or other person interested therein, to issue a new patent for the same invention or discovery, bearing the date of the original patent, with his certificate thereon that it was made and issued pursuant to the provisions of the third section of this act, and shall enter the same of record : *Provided, however,* That before such patent shall be issued, the applicant therefor shall deposit in the Patent Office a duplicate, as near as may be, of the original model, drawings, and description, with specification of the invention or discovery, verified by oath, as shall be required by the Commissioner ; and such patent and copies of such drawings and descriptions, duly certified, shall be admissible as evidence in any judicial court of the United States, and shall protect the rights of the patentee, his administrators, heirs, and assigns, to the extent only in which they would have been protected by the original patent and specification.

§ 4. That it shall be the duty of the Commissioner to procure a duplicate of such of the models destroyed by fire on the aforesaid fifteenth day of December, as were most valuable and interesting, and whose preservation would be important to the public ; and such as would be necessary to facilitate the just discharge of the duties imposed by law on the Commissioner in issuing patents, and to protect the rights of the public and of patentees in patented inventions and improvements : *Provided,* That a duplicate of such models may be obtained at a reasonable expense : *And provided, also,* That the whole amount of expenditure for this purpose shall not exceed the sum of one hundred thousand dollars. And there shall be a temporary board of commissioners, to be composed of the Commissioner of the Patent Office and two other persons to be appointed by the President, whose

duty it shall be to consider and determine upon the best and most judicious mode of obtaining models of suitable construction; and, also, to consider and determine what models may be procured in pursuance of, and in accordance with, the provisions and limitations in this section contained. And said commissioners may make and establish all such regulations, terms, and conditions, not inconsistent with law, as in their opinion, may be proper and necessary to carry the provisions of this section into effect according to its true intent.

§ 5. That, whenever a patent shall be returned for correction and re-issue under the thirteenth section of the act to which this is additional, and the patentee shall desire several patents to be issued for distinct and separate parts of the thing patented, he shall first pay, in manner and in addition to the sum provided by that act, the sum of thirty dollars for each additional patent so to be issued: *Provided, however*, That no patent made prior to the aforesaid fifteenth day of December, shall be corrected and reissued until a duplicate of the model and drawing of the thing as originally invented, verified by oath as shall be required by the Commissioner, shall be deposited in the Patent Office.

Nor shall any addition of an improvement be made to any patent heretofore granted, nor any new patent be issued for an improvement made in any machine, manufacture, or process, to the original inventor, assignee, or possessor of a patent therefor, nor any disclaimer be admitted to record, until a duplicate model and drawing of the thing originally intended, verified as aforesaid, shall have been deposited in the Patent Office, if the commissioner shall require the same; nor shall any patent be granted for an invention, improvement, or discovery, the model or drawing of which shall have been lost, until another model and drawing, if required by the commissioner, shall, in like manner, be deposited in the Patent Office.

And in all such cases, as well as in those which may arise under the third section of this act, the question of compensation for such models and drawing, shall be sub-

ject to the judgment and decision of the Commissioners provided for in the fourth section, under the same limitations and restrictions as are therein prescribed.

§ 6. That any patent hereafter to be issued, may be made and issued to the assignee or assignees of the inventor or discoverer, the assignment thereof being first entered of record, and the application therefor being duly made, and the specification duly sworn to by the inventor. And in all cases hereafter, the applicant for a patent shall be held to furnish duplicate drawings, whenever the case admits of drawings, one of which to be deposited in the office, and the other to be annexed to the patent, and considered a part of the specification.

§ 7. That whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent Office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same.

§ 8. That, whenever application shall be made to the Commissioner for any addition of a newly discovered improvement to be made to an existing patent, or when-

ever a patent shall be returned for correction and re-issue, the specification of claim annexed to every such patent shall be subject to revision and restriction, in the same manner as are original applications for patents; the Commissioner shall not add any such improvement to the patent in the one case, nor grant the re-issue in the other case, until the applicant shall have entered a disclaimer, or altered his specification of claim in accordance with the decision of the Commissioner; and in all such cases, the applicant, if dissatisfied with such decision, shall have the same remedy and be entitled to the benefit of the same privileges and proceedings as are provided by law in the case of original applications for patents.

§ 9. Any thing in the fifteenth section of the act to which this is additional to the contrary notwithstanding, That, whenever by mistake, accident, or inadvertence, and without any wilful default or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and *bonâ fide* his own, *Provided*, it shall be a material and substantial part of the thing patented, and be definitely distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of a whole or of a sectional interest therein, shall be entitled to maintain a suit at law or in equity on such patent for any infringement of such part of the invention or discovery as shall be *bonâ fide* his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But, in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent Office, prior to the com-

mencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right: *Provided, however,* That no person bringing any such suit shall be entitled to the benefits of the provisions contained in this section who shall have unreasonably neglected or delayed to enter at the Patent Office, a disclaimer as aforesaid.

§ 10. That the Commissioner is hereby authorized and empowered to appoint agents in not exceeding twenty of the principal cities or towns in the United States, as may best accommodate the different sections of the country, for the purpose of receiving and forwarding to the Patent Office all such models, specimens of ingredients and manufactures, as shall be intended to be patented or deposited therein, the transportation of the same to be chargeable to the patent fund.

§ 11. That, instead of one examining clerk, as provided by the second section of the act to which this is additional, there shall be appointed, in manner therein provided, two examining clerks, each to receive an annual salary of fifteen hundred dollars; and also an additional copying clerk, at an annual salary of eight hundred dollars. And the Commissioner is also authorized to employ, from time to time, as many temporary clerks as may be necessary to execute the copying and draughting required by the first section of this act, and to examine and compare records with the originals, who shall receive not exceeding seven cents for every page of one hundred words, and for drawings, and comparison of records, with originals, such reasonable compensation as shall be agreed upon or prescribed by the Commissioner.

§ 12. That, whenever the application of any foreigner for a patent, shall be rejected and withdrawn for want of novelty in the invention, pursuant to the seventh section of the act to which this is additional, the certificate thereof of the Commissioner shall be a sufficient warrant to the Treasurer to pay back to such applicant two-thirds of the duty he shall have paid into the Treasury on account of such application.

§ 13. That in all cases in which an oath is required by this act, or by the act to which this is additional, if the person of whom it is required shall be conscientiously scrupulous of taking an oath, affirmation may be substituted therefor.

§ 14. That all moneys paid into the Treasury of the United States for patents and for fees for copies furnished by the Superintendent of the Patent Office prior to the passage of the act to which this is additional, shall be carried to the credit of the patent fund created by said act; and the moneys constituting said fund shall be, and the same are hereby appropriated for the payment of the salaries of the officers and clerks provided for by said act, and all other expenses of the Patent Office, including all the expenditures provided for by this act; and, also, for such other purposes as are or may be hereafter specially provided for by law. And the Commissioner is hereby authorized to draw upon said fund, from time to time, for such sums as shall be necessary to carry into effect the provisions of this act, governed, however, by the several limitations herein contained. And it shall be his duty to lay before Congress, in the month of January, annually, a detailed statement of the expenditures and payments by him made from said fund. And it shall also be his duty to lay before Congress, in the month of January, annually, a list of all patents which shall have been granted during the preceding year, designating under proper heads, the subjects of such patents, and furnishing an alphabetical list of the patentees, with their places of residence; and he shall also furnish a list of all patents which shall have become public property during the same period; together with such other information of the state and condition of the Patent Office, as may be useful to Congress or to the public.

APPROVED, *March 3d, 1837.*

FORM OF WITHDRAWAL.

To the Commissioner of Patents :

SIR : I hereby withdraw my application for a patent for improvements in _____, now in your office, and request that twenty dollars may be returned to me, agreeably to the provision of the act of Congress authorizing such withdrawal. S. C.

FORM OF SURRENDER OF A PATENT FOR REISSUE.

To the Commissioner of Patents :

The petition of S. C., of C., in the county of H., and State of M.,

RESPECTFULLY REPRESENTS :

That he did obtain letters patent of the United States for an improvement in _____, which letters patent are dated on the 1st day of March, 1835. That he now believes that the same are inoperative and invalid, by reason of a defective specification, which defect has arisen from inadvertence and mistake. He therefore prays that he may be allowed to surrender, and he hereby does surrender the same, and requests that new letters patent may issue to him, for the same invention, for the residue of the period for which the original patent was granted, under the amended specification herewith presented ; he having paid fifteen dollars into the Treasury of the United States, agreeably to the requirements of the act of Congress in that case made and provided.

S. C.

FORM OF ASSIGNMENT OF A RIGHT IN A PATENT.

WHEREAS I, S. C., of C., in the county of H., and State of M., did obtain letters patent of the United States for certain improvements in steam engines, which letters patent bear date the 1st day of March, 1835 ; and whereas J. D., of C. aforesaid, is desirous of acquiring an interest therein ; now THIS INDENTURE WITNESSETH, that for and in consideration of the sum _____, to me in hand paid, the receipt of which is hereby acknowledged, I have assigned, sold, and set over, and do hereby assign, sell, and set over, all the right, title, and interest which I have in the said invention, as secured to me by said letters patent, for, to, and in, the several States of _____, and in no other place or places. The same to be held and enjoyed by the said J. D. for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are or may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof I have hereunto set my hand and affixed my seal, this 1st day of March, 1838. S. C. [L. s.]

Witness : A— B—, C— D—,

FORM OF DISCLAIMER.

To the Commissioner of Patents :

The petition of S. C., of C., in the county of H., and State of M.,

RESPECTFULLY REPRESENTS :

That he has, by assignment duly recorded in the Patent Office, become the owner of a right, for the several States of , for which letters patent of the United States were granted to J. D. of B., in the State of M., dated on the 1st day of March, 1835. That he has reason to believe that, through inadvertence and mistake, the claim made in the specification of said letters patent is too broad, including that of which the said patentee was not the first inventor. Your petitioner, therefore, hereby enters his disclaimer to that part of the claim in the aforementioned specification, which is in the following words, to wit : * * * * * which disclaimer is to operate to the extent of the interest in said letters patent vested in your petitioner, who has paid ten dollars into the Treasury of the United States, agreeably to the requirements of the act of Congress in that case made and provided. S. C.

When the disclaimer is made by the original patentee, it must, of course, be so worded as to express that fact.

FORM OF CAVEAT.

To the Commissioner of Patents :

The petition of S. C., of C., in the county of H., and State of M.,

RESPECTFULLY REPRESENTS :

That he has made certain improvements in the ; and that he is now engaged in making experiments for the purpose of perfecting the same, preparatory to his applying for letters patent therefor. He therefore prays that the subjoined description of his invention may be filed as a CAVEAT, in the confidential archives of the Patent Office, agreeably to the provisions of the act of Congress in that case made and provided, he having paid twenty dollars into the Treasury of the United States, and otherwise complied with the requirements of the said act. S. C.

C., March 1, 1838.

FORM FOR ADDITION OF NEW IMPROVEMENTS.

To the Commissioner of Patents :

The petition of S. C., of C., in the county of H., and State of M.,

RESPECTFULLY REPRESENTS :

That your petitioner did obtain letters patent of the United States, for an improvement in the boilers of steam engines, which

letters patent are dated on the _____; that he has, since that date, made certain improvements on his said invention; and that he is desirous of adding the subjoined description of his said improvements to his original letters patent, agreeably to the provisions of the act of Congress in that case made and provided, he having paid fifteen dollars into the Treasury of the United States, and otherwise complied with the requirements of the said act.

S. C.

**FORM OF ASSIGNMENT BEFORE OBTAINING LETTERS PATENT AND
TO BE RECORDED PREPARATORY THERETO.**

Whereas I, S. C., of C., in the county of H., and State of M., have invented certain new and useful improvements in _____, for which I am about to make application for letters patent of the United States; and whereas, J. D., of C., aforesaid, has agreed to purchase from me all the right, title, and interest, which I have, or may have, in and to the said invention, in consequence of the grant of letters patent therefor, and has paid to me, the said C., the sum of _____, the receipt of which is hereby acknowledged: Now this indenture witnesseth, that for and in consideration of the said sum to me paid, I have assigned and transferred, and do hereby assign and transfer, to the said J. D., the full and exclusive right to all the improvements made by me, as fully set forth and described in the specification which I have prepared and executed preparatory to the obtaining of letters patent therefor. And I do hereby authorize and request the Commissioner of Patents to issue the said letters patent to the said J. D., as the assignee of my whole right and title thereto, for the sole use and behoof of the said J. D., and his legal representatives.

In testimony whereof, I have hereunto set my hand, and affixed my seal, this _____ day of _____ S. C. [L. s.]

Witness: A— B—, C— D—.

[The above forms are from the Circular of the Patent Office.]

FEE PAYABLE AT THE PATENT OFFICE.

Patent fee to a citizen of the U. S.	\$30	Extending term of a patent,	40
_____ to a foreigner resident a		Recording an assignment,	3
year and having made declara-		Specification of improvements,	15
tion of an intention to be natu-		Surrender of patent and taking	
ralized,	30	out a new one to correct a mis-	
_____ to a British subject,	500	take,	15
_____ to other foreigner,	300	Disclaimer,	10
Entering a caveat,	20	Copies,—for every 100 words, 10 cents.	
Appeal from the decision of the		Copies of drawings,—a reasonable	
Commissioner to arbitrators,	25	charge.	

ADDENDA.—JANUARY, 1840.

Act of March 3d, 1839. c. 88.

An act in addition to "an act to promote the progress of the useful arts."

- Sec. 1. Two assistant examiners to be appointed—how—their salaries.
2. Temporary clerks may be employed.
3. Classified and alphabetical list of patents to be published. 100 copies to be retained in Patent Office, and 900 deposited in Congress library. \$1000 appropriated.
4. \$3,659.22 appropriated to pay for the use of rooms in City Hall.
5. \$1000 appropriated for the purchase of books.
6. No person to be debarred from receiving a patent for any invention or discovery, by reason of the same having been patented in a foreign country more than six months prior to his application.
7. Persons or corporations, having purchased or constructed any newly invented machine, &c. prior to the application of

the inventor or discoverer for a patent shall possess the right to use, or vend the same—patents not valid by reason of such purchase, &c. except, &c.

- Sec. 8. So much 11th sec. act 4th July 1836, as requires payment for recording assignments, repealed. Assignments, &c. to be recorded without any charge.
9. \$1000 appropriated for the collection of agricultural statistics, and other agricultural purposes.
10. Provisions 16th sec. act 4th July, 1836, extended to all cases where patents are refused for any reason whatever, either by Commissioner of Patents, or by the chief justice of the District of Columbia, &c.
11. In cases of appeal from decision of Commissioner to board of examiners,

authorized by 7th section, act 4th July, 1836, the parties may appeal to chief justice of district court U. S. for District of Columbia, &c.—how. Chief justice to hear and determine such appeals, &c.—how. Commissioner to notify the parties, to lay before the judge all the original papers and evidence, and the grounds for his decision. Commissioner and examiners of Patent Of-

fice may be examined under oath, &c. Judge to return the papers, with a certificate of his proceedings and decision—said decision to govern the Commissioner.

Sec. 12. Commissioner may make regulations respecting evidence in contested cases. That part act 4th July, 1836, relative to a board of examiners, repealed.

13. Chief justice to be paid \$100 annually.

§ 1. *Be it enacted, &c.* That there shall be appointed, in manner provided in the second section of the act to which this is additional, two assistant examiners, each to receive an annual salary of twelve hundred and fifty dollars.

§ 2. That the Commissioner be authorized to employ temporary clerks to do any necessary transcribing whenever the current business of the office requires it; *Provided, however,* That instead of salary, a compensation shall be allowed, at a rate not greater than is charged for copies now furnished by the office.

§ 3. That the Commissioner is hereby authorized to publish a classified and alphabetical list of all patents granted by the Patent Office previous to said publication, and retain one hundred copies for the Patent Office and nine hundred copies be deposited in the library of Congress, for such distribution as may be hereafter directed; and that one thousand dollars, if necessary, be appropriated, out of the patent fund, to defray the expense of the same.

§ 4. That the sum of three thousand six hundred and fifty-nine dollars, and twenty-two cents be, and is hereby, appropriated from the patent fund, to pay for the use and occupation of rooms in the City Hall by the Patent Office.

§ 5. That the sum of one thousand dollars be appro-

priated from the patent fund, to be expended under the direction of the Commissioner, for the purchase of necessary books for the library of the Patent Office.

§ 6. That no person shall be debarred from receiving a patent for any invention or discovery, as provided in the act approved on the fourth day of July, one thousand eight hundred and thirty-six, to which this is additional, by reason of the same having been patented in a foreign country more than six months prior to his application: *Provided*, That the same shall not have been introduced into public and common use, in the United States, prior to the application for such patent: *And provided, also*, That in all cases every such patent shall be limited to the term of fourteen years from the date or publication of such foreign letters patent.

§ 7. That every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public; or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.

§ 8. That so much of the eleventh section of the above recited act as requires the payment of three dollars to the Commissioner of Patents for recording any assignment, grant, or conveyance of the whole or any part of the interest or right under any patent, be, and the same is hereby, repealed; and all such assignments, grants, and conveyances shall, in future, be recorded without any charge whatever.

§ 9. That a sum of money not exceeding one thousand dollars, be, and the same is hereby, appropriated, out of

the patent fund, to be expended by the Commissioner of Patents in the collection of agricultural statistics, and for other agricultural purposes; for which the said Commissioner shall account in his next annual report.

§ 10. That the provisions of the sixteenth section of the before recited act shall extend to all cases where patents are refused for any reason whatever, either by the commissioner of patents, or by the chief justice of the District of Columbia, upon appeals from the decision of said commissioner, as well as where the same shall have been refused on account of, or by reason of, interference with a previously existing patent; and in all cases where there is no opposing party, a copy of the bill shall be served upon the commissioner of patents, when the whole of the expenses of the proceeding shall be paid by the applicant, whether the final decision shall be in his favor or otherwise.

§ 11. That in all cases where an appeal is now allowed by law from the decision of the commissioner of patents to a board of examiners provided for in the seventh section of the act to which this is additional, the party, instead thereof, shall have a right to appeal to the chief justice of the district court of the United States for the District of Columbia, by giving notice thereof to the Commissioner, and filing in the Patent Office, within such time as the Commissioner shall appoint, his reasons of appeal, specifically set forth in writing, and also paying into the Patent Office, to the credit of the patent fund, the sum of twenty-five dollars. And it shall be the duty of said chief justice, on petition, to hear and determine all such appeals, and to revise such decisions in a summary way, on the evidence produced before the Commissioner, at such early and convenient time as he may appoint, first notifying the Commissioner of the time and place of hearing, whose duty it shall be to give notice thereof to all parties who appear to be interested therein, in such manner as said judge shall prescribe. The Commissioner shall also lay before the said judge all the original papers and evidence in the case, together with the grounds of his decision, fully set forth in writing,

touching all the points involved by the reasons of appeal, to which the revision shall be confined. And at the request of any party interested, or at the desire of the judge, the Commissioner and the examiners in the Patent Office, may be examined under oath, in explanation of the principles of the machine or other thing for which a patent, in such case, is prayed for. And it shall be the duty of said judge, after a hearing of any such case, to return all the papers to the Commissioner, with a certificate of his proceedings and decision, which shall be entered of record in the Patent Office; and such decision, so certified shall govern the further proceedings of the Commissioner in such case; *Provided, however,* That no opinion or decision of the judge in any such case, shall preclude any person interested in favor or against the validity of any patent which has been or may hereafter, be granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question.

§ 12. That the Commissioner of Patents shall have power to make all such regulations in respect to the taking of evidence to be used in contested cases before him, as may be just and reasonable. And so much of the act to which this is additional, as provides for a board of examiners, is hereby repealed.

§ 13. That there be paid annually, out of the patent fund, to the said chief justice, in consideration of the duties herein imposed, the sum of one hundred dollars.

APPROVED, *March 3d, 1839.*



